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Fats and Oils Situation

Economics, Statistics,
and Cooperatives Service

U.S. Department of
Agriculture

Approved by the
World Food and
Agricultural Outlook
and Situation Board

FOS-291

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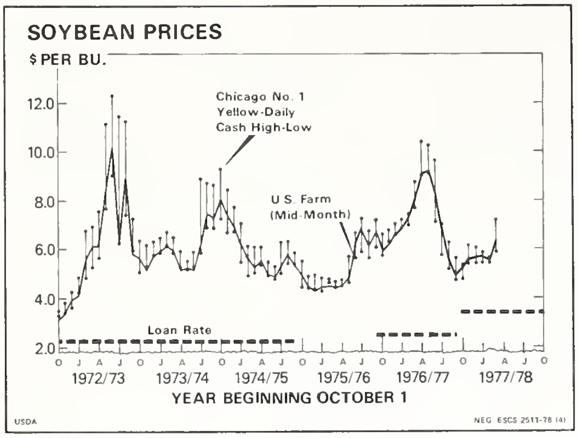
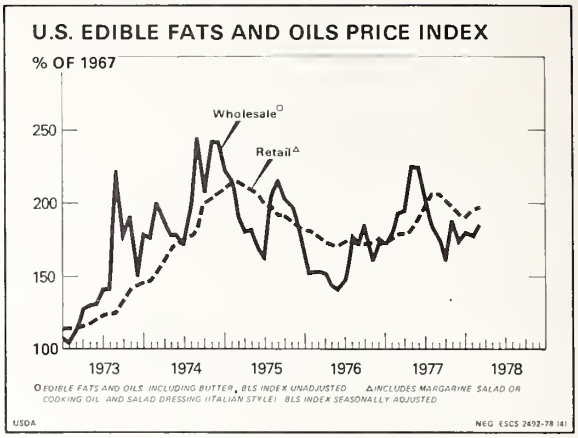


Figure 1



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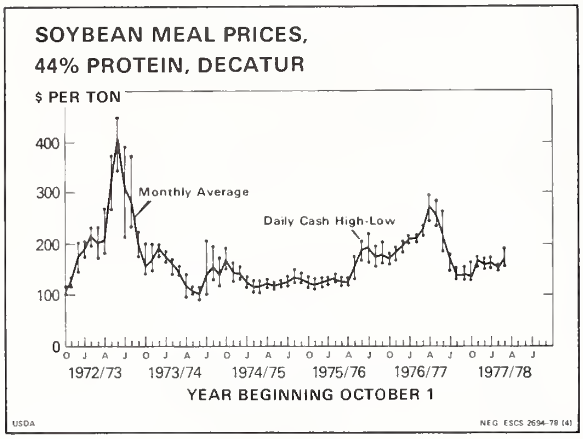

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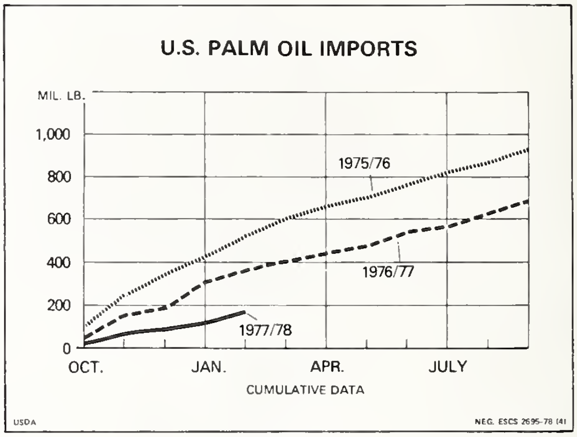

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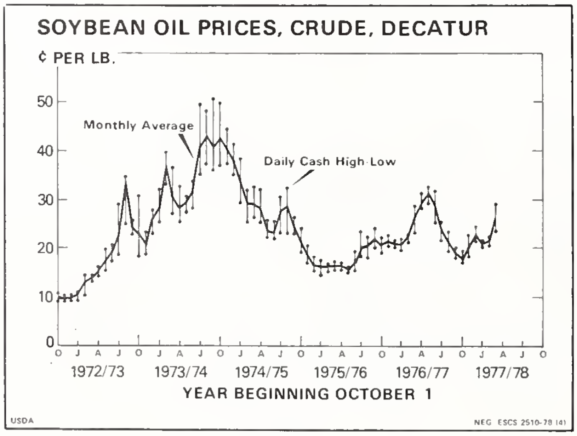
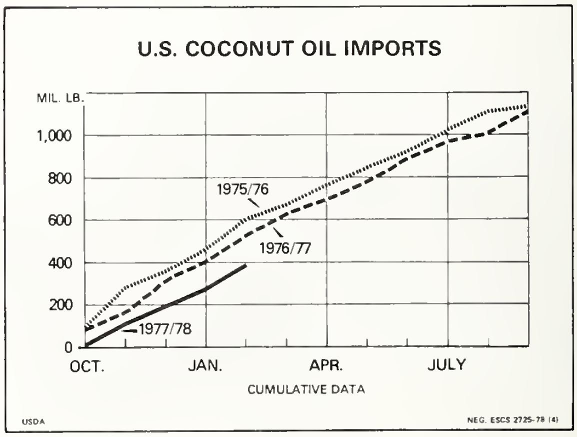


Figure 5



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SUMMARY

The unusual "large supply-high price" soybean market situation is due to exceptionally strong world demand for U.S. soybeans. The strengthened demand mainly reflects the reduced 1978 Brazilian soybean crop which has added to the already strong world demand for soybeans and products. Record-high U.S. soybean crushings and exports are boosting domestic soybean use to over 1.6 billion bushels (44 million metric tons), more than a tenth above the 1976/77 level. Soybean stocks on September 1 are expected to total around 200 million bushels, about double the year-earlier level, but considerably below early season projections. However, U.S. stocks could be even lower if demand proves stronger—the result of a possible further reduction in the 1978 Brazilian soybean crop.

Soybean prices (No. 1 yellow, Chicago) leaped from about $5.50 in February, to $6.50 in March, to around $7 in late April. Although prices are strong, they are well below the $10 level of a year ago. Soybean prices likely will continue relatively high this year but may decline seasonally, if plantings and the development of the 1978 crop are favorable to larger output. The price situation also will depend on the final outcome of the 1978 Brazilian soybean harvest and on demand developments from the People's Republic of China (PRC) and the USSR. Much also depends on the value of the U.S.

dollar (which has been weak) relative to world market currencies, especially those in Europe and Japan.

In early April, U.S. farmers reported plans to seed 64 million acres of soybeans this spring, 8 percent more than planted last year. However, these plans did not fully reflect new program initiatives, especially added diversion of feed grain and cotton acreage. If there is much participation in the diversion program, land available for soybean plantings could drop. However, continued high soybean prices relative to corn and delayed spring planting would favor large plantings of soybeans. Signup through April 20 shows intended participation in the set-aside program had reached 20 percent. Signup continues through May 15. With the uncertainty about plantings and yields, soybean crop prospects this year range from 1.6 to 1.9 billion bushels. The 1978 soybean loan rate has been set at $4.50 per bushel, $1 above the 1977 rate.

Total U.S. soybean stocks, as of April 1, were 843 million bushels, compared with 618 million bushels a year ago. Nearly half of the April 1 stocks were stored on the farm. Moreover, soybean producers also control a large portion of beans stored off the farm.

U.S. soybean oil supplies this marketing year are estimated at nearly 11 billion pounds, a tenth above 1976/77 supplies. Domestic use is projected at about 8 billion pounds and exports are estimated at nearly 1.9 billion pounds. Prices of crude oil at Decatur advanced from 19 cents per pound last October to 28 cents in late April, about a cent below the April 1977 level. World demand for soybean oil continues strong but current price levels probably cannot be sustained unless some unexpected demand arises, such as further large shipments to the People's Republic of China. Last year, U.S. soybean oil prices shot up to a peak of 31 cents in May, when prospective supplies were tight.

U.S. soybean meal supplies this marketing year are estimated at 22 million short tons, some 17 percent above 1976/77. Domestic use is projected at a new high of 16½ million tons, and exports are estimated at more than 5 million tons. Prices of soybean meal (44-percent protein) at Decatur rose from $135 per ton last October to $169 in late April.

World production of protein meal in 1978 is forecast at about 77 million metric tons (soybean meal equivalent), an increase of 11 million metric tons over the 1977 level. This forecast is below earlier projections because of drought conditions in the major soybean-producing areas of Brazil. The 1978 Brazilian crop is estimated from 9.7 to 10.2 million metric tons, down from 12.2 million metric tons in 1977.

World production of oils and fats for 1978 is now estimated at 53 million metric tons, about 5 million tons above 1977, reflecting increases in oil output from soybeans, palm, sunflowerseeds, rapeseeds and cottonseeds. World exports of oils and fats are projected to rise to about 17½ million tons, about 1 million above the 1977 level.

U.S. cottonseed oil production from the 1977 crop is estimated at 1.6 billion pounds, compared with 1.2 billion pounds last season. Both domestic use and exports are up from last year's low level. About one-half of U.S. cottonseed oil production moves into export, with Egypt the major importer.

U.S. lard production for the current marketing year is running a little below last season's rate. For the year, production may total a tenth below the 1.1 billion pounds of 1976/77—mainly because of reduced lard yields per hog. Domestic use and exports may approximate the 1976/77 levels. Lard prices (loose, Chicago) rose from 19 cents per pound last fall to 23 cents in late April, reflecting the tighter outlook for lard supplies and a general strengthening in other food fat prices.

* * * * *

TABLE 1.--OILSEEDS. PROSPECTIVE PLANTINGS FOR 1978 (BASED ON APRIL INTENTIONS OF FARMERS) WITH COMPARISONS, 1955-79

YEAR	SOYBEANS				COTTONSEED			
	ACREAGE		PRODUCTION		COTTON ACREAGE		COTTONSEED PRODUCTION	
	PLANTED 1/	HARVESTED FOR BEANS	PER ACRE HARVESTED	TOTAL	PLANTED	HARVESTED	PER ACRE HARVESTED	TOTAL
	1,000 ACRES	1,000 ACRES	BUSHELS	MIL. BUSHELS	1,000 ACRES	1,000 ACRES	POUNDS	1,000 TONS
1955	19,674	18,620	20.1	373.7	17,991	16,928	714	6,043
1956	21,700	20,620	21.8	449.3	17,077	15,615	693	5,407
1957	21,938	20,857	23.2	483.4	14,310	13,558	680	4,609
1958	25,108	23,993	24.2	580.2	12,379	11,849	810	4,798
1959	23,349	22,631	23.5	532.9	15,833	15,117	793	5,991
1960	24,440	23,655	23.5	555.1	16,080	15,309	769	5,886
1961	27,787	27,003	25.1	678.6	16,588	15,634	765	5,978
1962	28,418	27,608	24.2	669.2	16,293	15,569	789	6,139
1963	29,462	28,615	24.4	699.2	14,843	14,212	871	6,192
1964	31,721	30,793	22.8	700.9	14,836	14,055	888	6,237
1965	35,227	34,449	24.5	845.6	14,152	13,613	894	6,0[illegible]7
1966	37,294	36,546	25.4	928.5	10,349	9,553	829	3,960
1967	40,819	39,805	24.5	976.4	9,450	7,997	803	3,210
1968	42,265	41,391	26.7	1,107.0	10,913	10,159	913	4,640
1969	42,534	41,337	27.4	1,133.1	11,882	11,051	736	4,068
1970	43,082	42,249	26.7	1,127.1	11,945	11,155	729	4,068
1971	43,475	42,705	27.5	1,176.0	12,355	11,471	739	4,240
1972	46,866	45,683	27.8	1,270.6	14,001	12,984	831	5,393
1973	56,547	55,667	27.8	1,547.2	12,480	11,970	838	5,016
1974	52,477	51,341	23.7	1,214.8	13,679	12,547	719	4,510
1975	54,550	53,579	28.9	1,547.4	9,342	8,796	732	3,218
1976	50,226	49,358	26.1	1,287.6	11,655	10,914	760	4,149
1977 2/	59,080	57,911	29.6	1,716.3	13,711	13,259	834	5,531
1978 3/	63,664				12,915			
1979								

YEAR	FLAXSEED				PEANUTS				TOTAL 4 OILSEEDS
	ACREAGE		PRODUCTION		ACREAGE		PRODUCTION		ACREAGE PLANTED
	PLANTED	HARVESTED	PER ACRE HARVESTED	TOTAL	PLANTED 1/	HARVESTED FOR NUTS	PER ACRE HARVESTED	TOTAL	
	1,000 ACRES	1,000 ACRES	BUSHELS	MIL. BUSHELS	1,000 ACRES	1,000 ACRES	BUSHELS	MIL. POUNDS	MIL. ACRES
1955	5,148	4,914	8.2	40.4	1,882	1,669	928	1,548	44.7
1956	5,786	5,473	8.6	47.0	1,834	1,384	1,161	1,607	46.4
1957	5,481	4,793	5.2	25.1	1,746	1,481	969	1,436	43.5
1958	3,862	3,679	10.2	37.4	1,702	1,516	1,197	1,814	43.1
1959	3,268	2,932	7.2	21.2	1,576	1,435	1,061	1,523	44.0
1960	3,437	3,342	9.1	30.4	1,526	1,395	1,232	1,718	45.5
1961	2,975	2,514	8.8	22.2	1,524	1,398	1,185	1,657	48.9
1962	3,102	2,808	11.5	32.2	1,507	1,400	1,228	1,719	49.3
1963	3,379	3,172	9.8	31.0	1,498	1,396	1,391	1,942	49.2
1964	2,965	2,825	8.6	24.4	1,487	1,397	1,502	2,099	51.0
1965	2,868	2,775	12.8	35.4	1,520	1,438	1,661	2,390	53.8
1966	2,679	2,576	9.1	23.4	1,490	1,421	1,700	2,416	51.8
1967	2,061	1,975	10.1	20.0	1,474	1,404	1,765	2,477	53.8
1968	2,177	2,092	12.9	27.0	1,496	1,438	1,770	2,547	56.9
1969	2,661	2,605	13.4	34.9	1,512	1,456	1,742	2,535	58.6
1970	2,950	2,836	10.4	29.5	1,518	1,469	2,031	2,979	59.5
1971	1,627	1,545	11.8	18.2	1,529	1,454	2,066	3,005	59.0
1972	1,189	1,149	12.1	13.9	1,533	1,486	2,203	3,275	63.6
1973	1,749	1,700	9.7	16.1	1,530	1,496	2,323	3,474	72.3
1974	1,742	1,659	8.5	13.5	1,520	1,472	2,491	3,668	69.4
1975	1,621	1,511	10.3	15.5	1,532	1,504	2,565	3,857	67.6
1976	1,076	985	7.9	7.8	1,549	1,522	2,465	3,751	64.5
1977 2/	1,510	1,414	11.4	16.1	1,545	1,516	2,457	3,726	75.8
1978 3/	1,005				1,552				79.1
1979									

1/ ACREAGE GROWN ALONE FOR ALL PURPOSES.

2/ PRELIMINARY.

3/ INDICATED APRIL 1.

FATS AND OILS SITUATION

SITUATION AND OUTLOOK

Prospective 1978 Acreages

Soybean Planting Intentions Up 8 Percent

According to April 1 planting intentions, acreage planted to the five major U.S. oilseed crops in 1978 will total a record 82 million acres, compared with 78 million acres last year.

Soybean growers intend to plant nearly 64 million acres, up about 4½ million from last year. Prices received for soybeans have been relatively favorable, compared with prices for feed grains, wheat, and cotton. The soybean/corn price ratio in late April, at 2.6 to 1, favored planting soybeans. The new crop price ratio (November 1978 soybeans versus December corn) in late April was about 2.4 to 1. Farmers plan to increase soybean acreage this year in all the major producing regions.

There is some uncertainty as to how many acres will be finally planted this year since changes in provisions of the 1978 feed grains, cotton, and wheat programs were released during the survey period, as was the announcement for the 1978 soybean loan rate of $4.50 per bushel, up $1 from 1977. Other factors having a bearing on 1978 acreage will be the spring planting weather, the extent to which farmers double-crop, as well as the number of wheat and feed grain producers that participate in the set-aside programs and farmer-held grain reserves. Signup continues through May 15. Signup through April 20 shows intended participation in the set-aside program had reached 20 percent.

Soybean farmers are at liberty to plant as many acres to soybeans in 1978 as they want since soybeans are not included in the set-aside programs for feed grains. If a farmer plants wheat or feed grains, however, he must comply with the set-aside requirements in order to be eligible for price supports on all commodities, including soybeans.

Soybean production in 1978/79 is projected in the range of 1.6 to 1.9 billion bushels, depending on final acreage planted and yields. A 1.6-billion-bushel crop would reflect unfavorable weather and low yields. We are entering the planting season with adequate moisture reserves in most areas of the Soybean Belt, whereas a year ago moisture reserves were low. With sufficient moisture, we are at this time leaning toward the upper end of the production range of 1.9 billion bushels, reflecting both increased acreage and higher yields. Consequently, 1978/79 soybean supplies (production plus stocks) could exceed 2.0 billion bushels for the first time.

The prospective 1978 upland *cotton* acreage was reported at 12.9 million acres as of April 1, down 0.8 million acres from 1977. Lower prices received by producers, mounting stocks, and some voluntary reduction in acreage were contributing factors. Although there is no mandatory set-aside requirements for cotton, producers must make a voluntary 20-percent acreage reduction in 1978 to qualify for full target price protection. The land diversion programs recently announced for feed grains and cotton will also affect final 1978 plantings.

Flaxseed acreage intentions for 1978 reveal a prospective cut to 1.0 million acres, compared with 1.5 million acres planted last year. Producer prices for flaxseed are off sharply this year, which has undoubtedly influenced cutbacks in prospective acreage.

Sunflowerseed planting intentions in four States (North Dakota, South Dakota, Minnesota, and Texas) show that 2.7 million acres will be seeded, up 17 percent from 1977. Prices to growers declined earlier last year, but are still an attractive cash crop in the Red River Valley area.

Peanut growers intend to plant nearly 1.6 million acres, not much change from last year. Peanut plantings are under acreage controls and the national allotment has been held at the legal minimum of 1.6 million acres each year since 1956. Peanut production is projected in the range of 1.8 to 2.1 million short tons, compared with about 1.9 million in 1977. This forecast depends upon weather developments during the growing and harvesting season.

SOYBEANS

April 1 Stocks High

U.S. soybean supplies for the 1977/78 marketing year total 1.8 billion bushels, about a fifth above 1976/77. During September-March, 547 million

TABLE 2.--SOYBEANS: PROSPECTIVE PLANTINGS FOR 1978 WITH COMPARISONS, BY STATES AND AREAS, CROP YEARS, 1975-78

STATE AND AREA	ACREAGE PLANTED ACTUAL 1975	1976	1977 1/	1978 2/	ACREAGE HARVESTED 1975	1976	1977 1/	1978 2/	PRODUCTION 1975	1976	1977 1/	1978
	1,000 ACRES								MILLION BUSHELS			
NORTH CAROLINA	1,500	1,220	1,450	1,650	1,420	1,120	1,320		33.4	24.6	29.0	
SOUTH CAROLINA	1,420	1,230	1,350	1,400	1,380	1,190	1,300		30.4	21.4	26.0	
GEORGIA	1,190	890	1,250	1,550	1,160	870	1,090		29.6	20.4	21.8	
ALABAMA	1,300	1,200	1,650	2,000	1,260	1,170	1,600		30.9	28.1	33.6	
TOTAL SOUTHEAST	5,410	4,450	5,700	6,600	5.220	4,350	5,310		124.3	94.5	110.4	
KENTUCKY	1,150	1,100	1,400	1,400	1,100	1,070	1,360		29.7	28.9	40.1	
TENNESSEE	1,950	1,920	2,300	2,300	1,850	1,800	2,200		46.2	40.5	50.6	
MISSISSIPPI	3,230	3,335	3,750	4,000	3,120	3,250	3,650		70.2	71.5	74.8	
ARKANSAS	4,750	4,360	4,650	4,750	4,700	4,320	4,600		117.5	82.1	101.2	
LOUISIANA	2,000	2,280	2,750	2,900	1,920	2,250	2,680		48.0	63.0	63.0	
TOTAL SOUTH CENTRAL	13,080	12,995	14,850	15,350	12,690	12,690	14,490		311.6	286.0	329 7	
OHIO	3,120	2,900	3,400	3,850	3,100	2,880	3,380		102.3	95.0	116.6	
INDIANA	3,650	3,300	3,900	4,300	3,630	3,280	3,870		121.6	111.5	139.3	
ILLINOIS	8,350	7,600	8,900	9,250	8,320	7,560	8,850		229.5	249.5	327.5	
IOWA	7,000	6,470	7,250	7,650	6,970	6,450	7,230		237.0	200.0	245.8	
MISSOURI	4,450	4,300	4,880	5,300	4,370	4,200	4,800		113.6	84.0	144.0	
MINNESOTA	3,700	3,050	3,850	4.200	3,650	3,020	2,810		98.6	66.4	133.4	
TOTAL EASTERN CORN BELT	30.270	27,620	31,050	34,550	30,040	27,390	31,940		902,6	806.4	1,106.6	
NORTH DAKOTA	180	150	195	250	149	147	190		2.9	1.8	3.8	
SOUTH DAKOTA	345	280	310	340	342	271	305		8.6	4.6	9.2	
NEBRASKA	1,220	995	1,200	1,500	1,200	980	1,180		32.4	19.6	40.1	
KANSAS	1,100	900	1,020	1,220	1,080	865	990		22.7	13.0	27.7	
TOTAL WESTERN CORN BELT	2,845	2,325	2,725	3,310	2,771	2,263	2,665		66.6	39.0	80.8	
ALL OTHERS 3/	2,945	2,836	4,755	3,854	2,858	2,665	3,506		142.3	61.7	88.8	
UNITED STATES	54,550	50,226	59,080	63,664	53,579	49,358	57,911		1,547.4	1,287.6	1,716.3	

1/ PRELIMINARY.
2/ APR. 1 INDICATIONS.
3/ NEW YORK, NEW JERSEY, PENNSYLVANIA, MICHIGAN, WISCONSIN, DELAWARE, MARYLAND, VIRGINIA, FLORIDA, OKLAHOMA, AND TEXAS.

TABLE 3.--SOYBEANS: SUPPLY, DISPOSITION, ACREAGE AND PRICE, 1970-78

ITEM	YEAR BEGINNING SEPTEMBER 1970	1971	1972	1973	1974	1975	1976	1977 1/	1978 2/
				SUPPLY AND DISPOSITION (MILLION BUSHELS)					
SUPPLY:									
STOCKS, SEPTEMBER 1	229.8	98.8	72.0	59.6	170.9	188.0	245	103	200
IMPORTS	3/	3/	3/	---	---	---	---	---	---
PRODUCTION	1,127.1	1,127.1	1,270.6	1,547.2	1,214.8	1,547.4	1,288	1,716	1,550-1,900
TOTAL SUPPLY	1,356.9	1,274.8	1,342.6	1,606.8	1,385.7	1,735.4	1,533	1,819	1,750-2,100
DISPOSITION:									
CRUSHINGS	760.1	720.5	721.8	821.3	701.3	865.1	790	910	
EXPORTS	433.8	416.8	479.4	539.1	420.7	555.1	564	635	
SEED	48.1	51.0	60.8	56.1	59.3	53.5			
FEED	1.1	1.1	1.1	1.2	1.0	1.2	76	74	
RESIDUAL	15.0	13.4.	19.9	18.2	18.4	15.9			
TOTAL DISPOSITION	1,258.1	1,202.8	1,283.0	1,435.9	1,200.7	1,490.8	1,430	1,619	
STOCKS, AUGUST 1	98.8	72.0	59.6	170.9	185.0	244.6	103	200	
				ACREAGE AND YIELD (MILLION ACRES)					
ACREAGE PLANTED	43.1	43.5	46.9	56.7	53.7	54.6	50.2	59.1	
ACREAGE HARVESTED FOR BEANS	42.2	42.7	45.7	55.8	52.4	53.6	49.4	57.9	
PERCENT HARVESTED	97.9	98.2	97.4	98.4	98.0	98.4	98.2	98.3	
				(BUSHELS)					
YIELD PER ACRE HARVESTED	26.7	27.5	27.8	27.7	23.2	28.8	26.1	29.6	
				PRICE (DOLLARS)					
PRICE PER BUSHEL:									
SUPPORT (U.S. FARM BASIS)	2.25	2.25	2.25	2.25	2.25	4/	2.50	3.50	4.50
RECEIVED BY FARMERS	2.85	3.03	4.37	5.68	6.64	4.92	6.81	5.79	
NO. 1 YELLOW, ILL. PTS.	3.00	3.24	6.21	6.12	6.33	5.26	7.33		
NO. 1 YELLOW, CHICAGO	3.05	3.29	6.27	6.12	6.33	5.25	7.36		

1/ PRELIMINARY, DISPOSITION IS FORECAST. 2/ PROJECTED. 3/ LESS THAN 500 THOUSAND BUSHELS. 4/ NO LOAN PROGRAM FOR 1975-CROP SOYBEANS.

bushels were crushed and 408 million bushels were exported; both uses sharply above 1976/77.

Soybeans in all storage positions on April 1, 1978, totaled 843 million bushels, compared with 618 million bushels a year ago. Farm stocks, estimated at 385 million bushels, were more than two-thirds larger while off-farm stocks at 458 million bushels were up 17 percent.

Based on April 1 supplies and our estimate of use for the entire marketing year, carryover stocks next September 1 would be around 200 million bushels, about double the year-earlier carryover, but well below earlier projections. However, U.S. stocks could be even lower if demand proves stronger—the result of a possible further reduction in the 1978 Brazilian soybean crop.

Crush at Record Pace

U.S. crushings of soybeans from September through March at 547 million bushels were 8 percent ahead of a year ago, averaging 78 million bushels monthly. Oil yields are averaging 10.8 pounds per bushel crushed versus 11.0 pounds a year earlier. Meal yields at 46.8 are off 1.0 pounds. The unusually strong demand for soybean oil and meal is generating the heavy crush. For all of 1977/78 the soybean crush is estimated at around 910 million bushels, compared with 790 million last season. The U.S. crush capacity is placed at 1,250 million bushels.

Crushing margins are averaging somewhat larger than earlier expected. Spot margins during September-March averaged 28 cents per bushel, compared with 18 cents a year earlier.

Exports To Reach New Highs

Soybean exports in 1977/78 are estimated at around 635 million bushels, compared with 564 million bushels last season. Increased oil and meal demand, along with reduced soybean availabilities out of Brazil, are providing the push. U.S. soybeans inspected for export from September 1 through April 21 totaled 456 million bushels, compared with 412 million bushels during the same period last year. Most of the increase in exports is destined for Western Europe, although exports to Japan are running ahead of last year's rate. The USSR has contracted to purchase 29 million bushels (800,000 metric tons) of soybeans so far this marketing year compared with only 3 million bushels for all of 1976/77.

Farm Prices Strong

Prices received by farmers for soybeans have advanced from last fall's low of $5.17 per bushel to $6.74 in April. Harvest delays last fall and strong demand have boosted prices. Also, Indian groundnut supplies as well as USSR sunflowerseeds, were smaller than earlier anticipated. And this spring's 1978 soybean crop in Brazil has been cut sharply due to drought in the major producing areas. Prices this spring and summer probably will remain relatively high, but may decline seasonally, if plantings and the development of the 1978 crop are favorable to larger output. The price situation also will depend on the final outcome of the 1978 Brazilian soybean harvest and demand developments from the PRC and the USSR. Much also depends on the value of the U.S. dollar (which has been weak) relative to world market currencies, especially those in Europe and Japan.

About 97 million bushels of soybeans have been placed under CCC loan. These likely will be redeemed in view of market prices relative to loan rate.

The 1978 soybean loan rate has been set at $4.50 per bushel, $1 above the 1977 rate.

WORLD OUTLOOK FOR OILSEEDS AND OILSEED PRODUCTS

World production of high-protein meals in 1978 is estimated at about 77 million metric tons (soybean meal equivalent), 11 million above the reduced 1977 volume, and 5 million above the previous large 1976 volume.

This estimate is down from earlier projections and chiefly reflects a further reduction in the 1978 Brazilian soybean crop estimate. Brazilian production is estimated from 9.7 to 10.2 million tons, compared with last year's 12.2-million-ton output.

The unprecedented expansion in U.S. meal production to 38 million tons (soybean meal equivalent) is now expected to account for 85 percent of the indicated potential gain in world meal output.

World production of soybean meal in 1978 is now estimated at 49½ million tons, 9 million tons above the reduced 1977 volume, and 4 million tons above the large 1976 volume.

World exports of oilseeds and meals in 1978 are now forecast to increase to 34½ million tons (soybean meal equivalent) 1.0 million tons above the 1977 volume. The reduction from the previous estimate reflects the downward revision in foreign availabilities of soybean meal that may cause meal prices to remain somewhat above earlier estimates. However, the reduction in foreign export availabilities is expected to boost aggregate U.S. exports to 19 million tons (soybean meal equivalent) or 1 million tons above the 1977 volume. Consequently, U.S. exports are now expected to account for 54 percent of world exports of oilseeds and meals, or slightly above the share achieved in recent years.

The 1978 world potential output of fats and oils, including vegetable, animal, and marine oils is now forecast at 53 million tons, less than the previous estimate, but still 5 million tons above last year's reduced volume. The current 1978 estimate is 3 million tons above the previous record of 1976. During 1965-75, world fats and oils consumption trended upward by about 1 million tons per year.

World potential output of soybean oil is now estimated at about 11 million tons, nearly 2 million tons above last year's reduced volume. This year, soybean oil output is indicated to account for about two-fifths of the growth in aggregate world output of fats and oils, about the same as the average during the 1965-75 period.

World fats and oils exports, including the oil equivalent of oilseeds, are forecast to increase to 17½ million tons, slightly below the previous estimate, but 0.7 million tons above the 1977 volume. Exports of soybeans and oil are not expected to change significantly from the 1977 volume, although increased movements from the United States and Argentina will likely offset reduced movements for Brazil.

SOYBEAN OIL

Soybean Oil Output Up, Use Rising

U.S. soybean oil production in 1977/78 is now estimated at around 10.0 billion pounds (based on October-September crush of 925 million bushels), compared with 8.6 billion pounds last season. With carryover stocks last October 1 at 0.8 billion pounds, total 1977/78 soybean oil supplies are nearly 11 billion pounds versus 9.8 billion in 1976/77.

Domestic use of soybean oil is expected to total 8.0 billion pounds, compared with 7½ billion pounds in 1976/77. Domestic use during October-February was up sharply from a year ago. Soybean oil used in shortening, salad and cooking oils, and margarine are all up from last year's rate.

Exports of soybean oil during the current marketing year are estimated at nearly 1.9 billion pounds, compared with 1.55 billion in 1976/77. India, Pakistan, Peru, PRC, Bangladesh, Colombia, and Iran are major markets. U.S. soybean oil exports during October-February totaled 733 million pounds, 42 percent more than a year earlier.

The 1977/78 export total includes 0.5 billion pounds of vegetable oil allocated under title I, Public Law 480 programs, mostly for India and Pakistan.

Soybean oil prices (crude, Decatur) advanced from 19 cents per pound last October to 28 cents in late April. World demand for soybean oil continues strong, but current price levels probably cannot be sustained unless some unexpected demand arises, such as large quantities for the PRC which has already purchased some U.S. soybean oil. Last year, soybean oil prices shot up to a peak of 31 cents in May.

SOYBEAN MEAL

Domestic Use Expanding

U.S. soybean meal supplies for the current marketing year are estimated at 22 million short tons, 17 percent above 1976/77.

Domestic use is projected at a new high of 16½ million tons, up 2½ million tons. Increases in livestock and poultry feeding and heavier feeding rates are boosting soybean meal consumption along with some buildup in pipeline inventories. Domestic use of soybean meal during October-February totaled 7.3 million tons, 11 percent more than in 1976/77. The monthly average so far this season at 1.5 million tons compared with 1.3 million last season. However, last year, use fell sharply during March-September, due to reduced supplies, whereas this year we expect the rate to be maintained, averaging about 1.3 million tons monthly. Sharp increases in livestock prices have also boosted the demand for relatively low-cost corn and soybean meal.

Soybean meal exports during October-February totaled 2.4 million tons versus 2.0 million tons for the same 1976/77 period. For all of 1977/78, exports probably will exceed 5 million tons, compared with 4½ million last season. Strong demand for soybean meal from Western Europe and Japan along with reduced availabilities from Brazil are factors boosting U.S. exports of soybeans and products. Another factor has been the decline in the U.S. dollar value relative to European currencies and the Japanese yen.

Prices of soybean meal (44-percent protein) at Decatur rose from $135 per ton last October to $175 in late April. Prices over the rest of the marketing year will continue at relatively high levels, partly depending upon Brazil's final soybean harvest.

SUNFLOWERSEED

1977 Crop Demand Strong

U.S. exports of sunflowerseed from the 1977 crop exceeded 1.3 billion pounds through January 31, 1978—more than double the comparable period last year. The largest increases were from shipments of

TABLE 4.--SOYBEANS: STOCKS ON FARM, OFF FARM AND TOTAL IN ALL POSITIONS, JANUARY 1, APRIL 1, JUNE 1, AND SEPT. 1, 1970-78

YEAR	JANUARY 1			APRIL 1			JUNE 1 1/			SEPTEMBER 1		
	ON FARM	OFF FARM	TOTAL	ON FARM	OFF FARM	TOTAL	ON FARM	OFF FARM	TOTAL	ON FARM	OFF FARM	TOTAL
	MILLION BUSHELS											
1970	372.1	683.4	1,055.5	209.2	525.0	743.2	79.0	324.4	403.4	41.1	188.9	230.0
1971	392.1	553.0	945.1	246.5	370.1	616.6	91.1	190.3	281.4	21.1	78.0	99.1
1972	398.0	491.0	889.0	219.0	333.2	552.2	58.4	174.6	233.0	12.1	60.0	72.1
1973	429.1	437.9	867.0	145.2	358.9	504.1	34.1	145.1	179.2	9.4	50.6	60.0
1974	607.2	553.7	1,160.9	331.2	406.0	737.2	151.0	191.0	342.0	64.4	106.6	171.0
1975	485.1	505.2	990.3	332.1	323.3	655.4	166.1	191.2	357.3	78.2	109.9	188.1
1976	590.5	665.7	1,256.2	411.4	456.3	867.6	254.0	300.9	554.9	86.2	158.8	244.9
1977	473.1	559.0	1,032.2	227.7	390.2	617.9	92.4	243.3	335.7	32.7	70.7	102.9
1978	656.6	651.3	1,307.9	384.8	457.8	842.6						
1979												

1/ ESCS ESTIMATES 1960-75. DERIVED FROM JULY 1 STOCKS BY ADDING JUNE CRUSHINGS AND EXPORTS.

TABLE 5.--SOYBEAN OIL: SUPPLY, DISAPPEARANCE, OIL EQUIVALENT OF SOYBEANS EXPORTED, AND PRICE, 1970-78

YEAR BEGINNING OCTOBER	SUPPLY				DISAPPEARANCE				SOYBEAN (OIL EQUIVALENT OF EXPORTS) 1/	PRICE PER POUND (TANK CARS)	
	PRODUCTION	IMPORTS	STOCKS OCTOBER 1	TOTAL	EXPORTS	SHIPMENTS TO U.S. TERRITORIES	DOMESTIC DISAPPEARANCE			CRUDE, DECATUR	REFINED, N.Y.
							TOTAL	PER CAPITA			
	MILLION POUNDS							POUNDS	MIL. LB.	CENTS	
1970	8,265	---	543	8,808	1,742	40	6,253	30.3	4,764	12.8	14.6
1971	7,892	3/	773	8,665	1,398	42	6,440	31.2	4,429	11.3	12.7
1972	7,501	3/	785	8,286	1,066	20	6,685	31.8	5,191	16.5	17.7
1973	8,995	3/	516	9,511	1,435	26	7,256	34.3	6,100	31.5	33.0
1974	7,375	---	794	8,169	1,028	62	6,518	30.6	4,643	30.7	33.0
1975	9,630	---	561	10,191	976	58	7,906	36.8	6,083	18.3	23.5
1976	8,578	---	1,251	9,829	1,547	60	7,455	34.5	6,127	23.9	29.2
1977 4/	9,983	---	765	10,750	1,850	50	8,000	36.0	6,875	6/22.7	6/27.1
1978 5/			900								
1979											

1/ CALCULATED AT 11.0 POUNDS OF OIL PER BUSHEL.
2/ INCLUDES ESTIMATES OF FOREIGN DONATIONS OF FATS AND OILS, NOT REPORTED BY CENSUS, 1960-64.
3/ LESS THAN 500,000 POUNDS.
4/ PRELIMINARY.
5/ FORECAST.
6/ OCTOBER-APRIL AVERAGE.

TABLE 6.--SOYBEAN MEAL: SUPPLY, DISAPPEARANCE, MEAL EQUIVALENT OF SOYBEANS EXPORTED, AND PRICE, 1970-78

YEAR BEGINNING OCTOBER	SUPPLY					DISAPPEARANCE			SOYBEANS (MEAL EQUIVALENT OF EXPORTS 2/	PRICE PER TON, BULK, DECATUR	
	PRODUCTION			STOCKS OCTOBER 1 1/	TOTAL	EXPORTS	SHIPMENTS TO U.S. TERRITORIES	DOMESTIC		44 PERCENT PROTEIN	49 OR 50 PERCENT PROTEIN
	TOTAL	FOR--									
		ANIMAL FEED	EDIBLE PROTEIN PRODUCTS								
	1,000 TONS									DOLLARS	
1970	18,035	---	---	137	18,172	4,559	61	13,406	10,286	78.50	84.30
1971	17,024	---	---	146	17,170	3,805	63	13,110	9,562	90.20	98.20
1972	16,709	---	---	192	16,901	4,745	52	11,921	11,208	229.00	253.40
1973	19,674	N.A.	N.A.	183	19,857	5,548	36	13,766	13,239	146.35	160.55
1974	3/16,702	16,437	265	507	17,209	4,299	50	12,502	10,000	130.85	141.25
1975	20,754	20,395	359	358	21,112	5,145	61	15,551	13,134	147.75	157.50
1976	18,488	18,100	388	355	18,843	4,559	55	14,001	13,224	199.80	218.73
1977 4/	21,782	21,370	412	228	22,010	5,100	50	16,450	15,100	6/160.65	6/173.16
1978 5/				410							
1979											

1/ STOCKS AT PROCESSORS' PLANTS.
2/ CALCULATED AT 47.5 POUNDS OF MEAL PER BUSHEL.
3/ IN JANUARY 1975 SOYBEAN CRUSHERS STARTED REPORTING TO CENSUS THE BREAKDOWN OF SOYBEAN MEAL PRODUCTION BETWEEN THAT FOR ANIMAL FEEDS AND FOR EDIBLE PROTEIN PRODUCTS.
4/ PRELIMINARY.
5/ FORECAST.
6/ OCTOBER-APRIL AVERAGE.
N.A.--NOT AVAILABLE.

TABLE 7.--MAJOR U.S. OILSEEDS: SUPPLY AND DISAPPEARANCE, CROP YEARS, 1975-78

YEAR AND COMMODITY	AREA				SUPPLY				DISAPPEARANCE				
	PLANTED		HARVESTED		BEGINNING STOCKS	IMPORTS	PRODUC-TION	TOTAL	CRUSHING	SEED, FEED AND RESIDUAL	DOMESTIC	EXPORTS AND SHIPMENTS	TOTAL
	1,000 AC.	1,000 HA.	1,000 AC.	1,000 HA.	1,000 METRIC TONS								
1975:													
SOYBEAN	54,550	22,076	53,579	21,683	5,121	---	42,113	47,234	23,545	1,916	25,461	15,107	40,568
PEANUTS	1,532	620	1,504	609	520	---	1,750	2,270	656	1/936	1,592	197	1,789
FLAXSEED	1,621	656	1,511	611	77	4	395	476	299	29	328	24	352
COTTONSEED	9,493	3,842	8,796	3,560	503	---	2,919	3,422	2,678	506	3,184	55	3,239
SUNFLOWERSEED	1,285	520	1,180	478	---	2	541	543	167	57	224	312	536
TOTAL	68,481	27,714	66,570	26,941	6,221	6	47,718	53,945	27,345	3,444	30,789	15,695	46,484
1976:													
SOYBEAN	50,226	20,326	49,358	19,975	6,666	---	35,042	41,708	21,505	2,051	23,556	15,351	38,907
PEANUTS	1,549	627	1,522	616	481	---	1,701	2,182	503	1/1,048	1,551	355	1,906
FLAXSEED	1,076	435	985	399	124	55	199	378	271	26	297	5	302
COTTONSEED	11,656	4,717	10,914	4,417	183	---	3,764	3,947	3,174	492	3,666	24	3,690
SUNFLOWERSEED	1,105	447	935	378	7	2	463	472	42	101	143	329	472
TOTAL	65,612	26,552	63,714	25,785	7,461	57	41,169	48,687	25,495	3,718	29,213	16,064	45,277
1977: 2/													
SOYBEAN	59,080	23,909	57,911	23,436	2,801	---	46,711	49,512	24,800	2,000	26,800	17,300	44,100
PEANUTS	1,545	625	1,514	613	296	---	1,670	1,946	227	1/1,083	1,310	455	1,765
FLAXSEED	1,510	611	1,414	572	76	19	409	504	280	25	305	25	330
COTTONSEED	13,711	5,549	13,259	5,366	257	---	5,018	5,275	4,536	417	4,953	45	4,998
SUNFLOWERSEED	2,460	996	2,338	946	0	2	1,311	1,313	181	134	315	907	1,222
TOTAL	78,301	31,690	76,436	30,933	3,410	21	55,139	58,570	30,024	3,659	33,683	18,732	52,415
1978: 3/													
SOYBEAN	63,664	25,764											
PEANUTS	3/1,552	628											
FLAXSEED	1,005	407											
COTTONSEED	12,915	5,227											
SUNFLOWERSEED	2,700	1,093											
TOTAL	81,836	33,119											

1/ MAINLY EDIBLE USE OF PEANUTS.

2/ PRELIMINARY.

3/ BASED ON APRIL PLANTING INTENTIONS.

TABLE 8.--U.S. SUNFLOWERSEED AND PRODUCTS: ESTIMATED SUPPLY, DISAPPEARANCE, AND PRICE 1975-78

ITEM	1975-76 ESTIMATED	1976-77 ESTIMATED	1977-78 FORECAST	1978-79 1/
	1,000 ACRES			
SUNFLOWERSEED:				
ACREAGE				
PLANTED	1,285	1,131	2,445	2,700
HARVESTED	1,180	1,035	2,325	
	POUNDS			
YIELD PER ACRE HARVESTED	1,010	986	1,242	
	MILLION POUNDS			
SUPPLY				
BEGINNING STOCKS, OCTOBER 1	0	15	0	
PRODUCTION	1,193	1,021	2,890	
IMPORTS	5	5	6	
TOTAL	1,198	1,041	2,896	
DISAPPEARANCE				
CRUSHINGS	369	80	493	
EXPORTS	688	712	1,718	
NON-OIL USAGE	203	231	301	
SEED	5	7	9	
RESIDUAL	(-82)	11	175	
TOTAL	1,183	1,041	2,696	
ENDING STOCKS, SEPTEMBER 30	15	0	200	
	CENTS			
PRICE PER POUND	10.8	11.0	10	
	MILLION POUNDS			
SUNFLOWER OIL:				
SUPPLY				
BEGINNING STOCKS, OCTOBER 1	3.1	20.2	0	
PRODUCTION	146.6	36.8	197	
TOTAL	149.7	57.0	197	
DISAPPEARANCE				
DOMESTIC	34.0	25.3	40	
EXPORTS	95.5	31.7	137	
TOTAL	129.5	57.0	177	
ENDING STOCKS, SEPTEMBER 30	20.2	0	20	

1/ APRIL 1 PLANTING INTENTIONS (4 STATES).

northern seed out of Duluth and New Orleans, 1.2 billion pounds, compared with 0.6 billion last year. However, Texas seed shipped through January 31 was almost 75 million pounds (30 million last year), most of which moved out of Houston, Beaumont, and Laredo to Mexico.

Supplies remaining in Duluth and Texas ports indicate that total shipments from the crop will equal at least 1.7 billion pounds; the total could be higher. The big question centers around the crush, which some of the trade believes will not exceed 500 million pounds, while others believe that oil requirements, domestic and foreign, will call for at least 600 million pounds. Oil exports have picked up from last year's slack season, with almost equal quantities of crude and refined sunflowerseed oil moving to countries such as Australia, Netherlands, and Egypt.

For the 1978 crop, a sharp increase is likely in the acreage planted. Planting seed availabilities have been the limiting factor; there appears to have been enough seed to plant 3 million acres, and seed companies are reportedly "sold out." There has been surprising activity all over the Nation; one new source of plantings may be the South Atlantic States. Estimates of planted acres for Florida to North Carolina are as high as 150,000 acres if—and it's a big "if"—moisture conditions improve to allow planting.

PALM OIL

Imports Down Sharply

Imports of palm oil into the United States during 1977/78 are estimated at around 500 million pounds, down sharply from the 661 million of last season. So far, imports are down sharply from the same period last year. The slack in U.S. imports is partially due to larger buying by other countries, although palm oil production in Malaysia is on the increase. India has increased its imports because of insufficient domestic supplies of edible vegetable oil. Also, palm oil has been selling at a premium to soybean oil this season—a factor tending to make palm oil imports less attractive.

Domestic disappearance of palm oil is estimated below 500 million pounds, compared with 610 million last season. Use so far is off sharply from year ago levels. The smaller palm oil imports and larger domestic supplies of soybean, cottonseed, and sunflowerseed oils are holding down use. Domestic use of palm oil hit a record 883 million pounds in 1975/76 but has trended downward since. Palm oil re-exports may total around 50 million pounds, roughly the same level as last season.

Palm oil prices (c.i.f., U.S. ports, bulk) have strengthened since the beginning of the season, rising from around 20 cents per pound last fall to around 28 cents in April. So far, prices have averaged 24 cents, about 1 cent below the same period last year. The firmer prices reflect the general strengthening of all major food fats in recent months. Prices in coming months will be influenced largely by the outlook for world fats and oils supplies and corresponding demand prospects.

COCONUT OIL

Imports Lag Last Year

Coconut oil imports during 1977/78 are expected to total about 1.0 billion pounds, about 15 percent below last year's level. Imports sharply trail year ago levels and likely will continue to do so over the balance of the season. Philippine copra production is expected to be up somewhat from last year. Also, prices are averaging a little higher this year.

Domestic use likely will approach 1 billion pounds. Through February, disappearance was down about a fourth from year earlier levels.

Coconut oil prices (crude, Pacific Coast) rose from 24 cents per pound last fall to around 32 cents in March. Prices over the balance of the season should be more stable than last year, when they dropped from 34 cents in May to around 22 cents in August.

COTTONSEED

Crushings Above Year Ago

During August-March, cottonseed crushings totaled 2.9 million tons, about 15 percent above the same period a year ago. The larger cottonseed supply, due primarily to the larger 1977 cottonseed crop, is making the expansion in crushings possible. So far, roughly one-half of the crop has been processed. Crushings over the balance of the season are expected to remain well above last season's April-July level of about 1 million tons, possibly running nearly double that level. For the entire season, crushings are expected to total about 5 million tons, up sharply from the 3.5 million of the previous season. This crush should produce about 1.6 billion pounds of cottonseed oil and 2.3 million short tons of cottonseed meal.

Nearly 90 percent of the 1977 crop has been delivered to the mills. Cottonseed stocks at mills on April 1 totaled 2.2 million tons, up sharply from a year ago.

The larger cottonseed crop, along with larger supplies of other major oilseeds at lower prices, has resulted in lower cottonseed prices this year. For

TABLE 9.--FOOD FATS AND OILS: SUPPLY, DISAPPEARANCE, AND PER CAPITA DISAPPEARANCE, 1968-77

ITEM	YEAR BEGINNING OCTOBER									
	1968	1969	1970	1971	1972	1973	1974	1975	1976 1/	1977 2/
	MILLION POUNDS									
STOCKS, OCTOBER 1										
BUTTER	197	155	171	222	178	94	106	40	68	203
LARD	94	56	60	77	44	28	48	23	34	32
TALLOW, EDIBLE	39	26	37	63	36	19	32	24	59	33
COCONUT OIL	130	108	102	108	111	114	122	107	127	137
CORN OIL	41	71	60	58	70	57	68	52	41	46
COTTONSEED OIL	99	377	121	94	114	114	110	136	105	79
SOYBEAN OIL	540	415	543	773	785	516	794	561	1,251	767
PALM OIL	28	28	20	36	93	60	88	127	138	131
PALM KERNEL OIL	28	20	15	26	24	20	26	20	27	46
PEANUT OIL	14	17	12	24	18	18	22	44	199	171
SAFFLOWER OIL	76	61	29	29	39	31	8	25	44	25
SUNFLOWER OIL	---	---	---	---	---	---	---	---	20	0
SUB-TOTAL	1,286	1,334	1,170	1,510	1,512	1,071	1,424	1,159	2,113	1,670
FINISHED PRODUCTS 3/	231	217	236	236	254	206	247	213	271	254
TOTAL FOOD FATS AND OILS	1,518	1,551	1,406	1,746	1,766	1,277	1,671	1,372	2,384	1,924
IMPORTS										
BUTTER	2	2	2	2	2	56	2	2	2	2
TALLOW, EDIBLE	4/	4/	4/	4/	1	4/	4/	---	---	---
OLIVE OIL	58	63	67	67	58	49	46	63	56	55
COCONUT OIL	438	562	606	634	687	563	674	1,243	1,115	1,000
CORN OIL	8	3	1	---	4/	1	2	1	10	5
COTTONSEED OIL	4/	4/	4/	---	4/	4/	---	---	---	---
PALM OIL	161	122	207	440	363	346	757	933	661	500
PALM KERNEL OIL	105	80	105	90	102	126	160	158	157	100
PEANUT OIL	4/	4/	4/	4/	4/	1	4/	2	---	---
SESAME OIL	2	2	2	2	2	3	2	3	3	3
SUNFLOWER OIL	---	---	---	---	---	---	1	2	---	---
TOTAL	774	834	990	1,235	1,215	1,145	1.644	2,412	2,004	1,665
PRODUCTION										
BUTTER	1,139	1,129	1,148	1,121	956	927	995	946	1,086	1,150
LARD	1,969	1,833	2,044	1,667	1,302	1,349	1,111	999	1,061	1,000
TALLOW, EDIBLE	520	566	550	523	481	556	557	527	532	625
OLEO OIL & STEARINE 5/	6	11	4	5	8	9	11	7	8	10
COCONUT OIL	376	298	205	336	310	93	---	---	---	---
CORN OIL	467	474	485	499	523	528	465	644	669	700
COTTONSEED OIL	1,450	1,251	1,235	1,308	1,564	1,552	1,335	920	1,198	1,600
SOYBEAN OIL	6,531	7,904	8,265	7,892	7,501	8,995	7,375	9,630	8,578	9,985
PEANUT OIL	199	180	266	265	273	195	236	494	312	150
SAFFLOWER OIL (ESTIMATE)	100	100	120	140	150	100	115	100	75	95
SUNFLOWER OIL	---	---	---	---	---	---	92	110	37	197
SUB-TOTAL	12,757	13,746	14,322	13,756	13,068	14,304	12,292	14,377	13,556	15,512
OILSEEDS (OIL EQUIVALENT OF EXPORTS)	3,210	5,007	4,857	4,556	5,299	6,221	4,887	6,445	6,453	7,640
TOTAL SUPPLY	18,258	21,138	21,575	21,293	21,348	22,947	20,494	24,606	24,397	26,741
EXPORTS AND SHIPMENTS										
BUTTER	37	8	27	124	18	8	4	3	4	5
LARD	282	405	382	220	132	180	148	185	249	220
TALLOW, EDIBLE	8	11	6	5	20	43	17	22	23	25
OLEO OIL & STEARINE	6	11	4	5	8	9	11	7	8	10
COCONUT OIL	9	9	17	20	19	17	14	53	31	50
CORN OIL	29	34	43	49	44	68	84	98	93	110
COTTONSEED OIL	141	453	373	453	584	565	696	500	691	800
PALM OIL	---	8	8	32	40	24	27	39	57	50
PEANUT OIL	28	34	60	71	111	42	40	104	74	100
PROCESSED FOOD OILS 6/	61	63	67	70	67	91	77	101	88	75
SAFFLOWER OIL (ESTIMATE)	---	25	20	40	40	25	25	25	15	25
SOYBEAN OIL	899	1,449	1,782	1,440	1,086	1,461	1,090	1,034	1,608	1,900
SUNFLOWER OIL	---	---	---	---	---	---	9	10	31	137
SUB-TOTAL	1,500	2,510	2,789	2,529	2,169	2,533	2,232	2,181	2,959	3,507
OILSEED (OIL EQUIVALENT)										
COTTONSEED	1	9	12	1	3	17	2	26	4	15
SOYBEANS	3,148	4,941	4,764	4,429	5,191	6,100	4,643	6,083	6,126	6,875
PEANUTS (FOR CRUSHING ABROAD)	9	12	58	71	56	68	54	---	1	---
SAFFLOWER	52	45	23	55	49	36	38	26	22	25
SUNFLOWER SEED	---	---	---	---	---	---	150	310	300	725
SUB-TOTAL	3,210	5,007	4,857	4,556	5,299	6,221	4,887	6,445	6,453	7,640
TOTAL EXPORTS	4,710	7,517	7,646	7,085	7,468	8,754	7,119	8,626	9,412	11,147
DOMESTIC DISAPPEARANCE										
BUTTER	1,146	1,106	1,075	1,043	1,024	964	1,059	917	948	1,000
LARD	1,726	1,425	1,645	1,480	1,185	1,150	989	803	814	800
TALLOW, EDIBLE	526	544	518	546	479	500	548	470	534	600
COCONUT OIL	829	855	788	948	974	631	675	1,175	1,075	925
CORN OIL	416	454	445	439	492	450	399	559	581	590
COTTONSEED OIL	1,031	1,052	890	834	980	991	622	451	532	750
SOYBEAN OIL	5,756	6,328	6,253	6,439	6,685	7,255	6,518	7,906	7,454	7,950
OLIVE OIL	58	63	67	67	58	49	46	63	56	55
PALM OIL	161	122	182	351	356	294	692	883	611	475
PALM KERNEL OIL	112	85	94	92	107	120	165	151	138	100
PEANUT OIL	168	151	193	200	162	150	175	237	265	150
SAFFLOWER OIL (ESTIMATE)	115	107	100	90	118	98	75	75	70	70
SESAME OIL	2	2	2	2	2	3	2	3	3	3
SUNFLOWER OIL	---	---	---	---	---	---	83	80	26	40
PROCESSED FOOD OILS 6/	-61	-63	-67	-70	-67	-91	-77	-101	-88	-75
TOTAL	11,985	12,231	12,185	12,461	12,555	12,564	11,971	13,672	13,019	13,433
TOTAL (CALCULATED NET) 7/	11,999	12,212	12,185	12,443	12,603	12,523	12,005	13,614	13,036	---
TOTAL USE FOR FOOD 8/	10,590	10,988	11,057	11,312	11,501	11,597	11,340	12.172	11,711	12,300
	POUNDS									
PER CAPITA DISAPPEARANCE										
BUTTER (FAT CONTENT)	4.6	4.4	4.2	4.0	3.9	3.7	4.0	3.4	3.5	
MARGARINE (FAT CONTENT)	8.5	8.7	8.7	8.9	9.0	9.0	8.8	9.6	9.3	
LARD (DIRECT USE)	5.2	4.5	4.6	3.7	3.5	3.2	3.0	2.8	2.3	
BAKING AND FRYING FATS	16.7	17.6	17.0	17.3	17.3	17.3	16.6	18.3	17.2	
SALAD AND COOKING OILS	14.0	15.0	15.6	16.7	17.4	18.5	17.8	19.5	19.0	
OTHER EDIBLE USES	2.3	2.6	2.3	2.7	2.7	2.1	2.0	2.1	1.9	
TOTAL (FAT CONTENT)	51.3	52.8	52.5	53.3	53.8	53.9	52.2	55.8	53.3	55-56

1/ PRELIMINARY. 2/ FORECAST. 3/ SHORTENING, MARGARINE (FAT CONTENT), AND SALAD AND COOKING OILS. 4/ LESS THAN 500,000 POUNDS. 5/ REPRESENTS EXPORTS ONLY; PRODUCTION DATA ARE NOT AVAILABLE. 6/ INCLUDES EXPORTS OF PROCESSED FOOD OILS NOT CLASSIFIED BY KIND, SHORTENING AND OTHER SECONDARY FATS. 7/ ADJUSTED TO REFLECT CHANGES IN STOCKS OF FINISHED PRODUCTS. 8/ EXCLUDES FOOD FATS AND OILS USED FOR NON-FOOD PURPOSES.

the season, prices received by farmers are expected to average about $71 per ton, down from the $103 of last season.

COTTONSEED OIL

Use Expanding

Cottonseed oil supplies are up sharply as a result of larger cottonseed crushing. Supplies total nearly 1.8 billion pounds, roughly a third above the previous year. Through March, production totaled 0.9 billion pounds, compared with 0.8 billion for the same period last year. However, output last season trailed off sharply in the second half of the year but is expected to continue relatively heavy this year. Cottonseed oil production for the season likely will total about 1.6 billion pounds, compared with 1.1 billion in 1976/77.

Both domestic disappearance and exports are up sharply from year-ago levels. For the entire marketing year, domestic use likely will approximate 0.8 billion pounds, up sharply from 0.5 billion pounds last season.

Exports have been heavy all season and likely will continue so over the rest of the year. As in recent years, Egypt and Venezuela are major buyers this year. For the season, exports could possibly approach 0.8 billion pounds, compared with 0.6 billion last year.

Cottonseed oil prices (crude, Valley) are averaging about 22 cents per pound this season, roughly 2 cents below the same period last year. However, prices have strengthened recently, rising to around 26 cents in April, an increase of about 6 cents since last fall. World demand for fats and oils is strong and indications that world supplies are not as large as earlier anticipated have added strength to prices. Prices over the next several months will be influenced by developments in world fats and oils supplies and demand.

COTTONSEED MEAL

Domestic Use Up Sharply

Cottonseed meal supplies this season total about 2½ million short tons, compared with 1.6 million in 1976/77. Increased cottonseed crushings and slightly higher meal yields mainly account for the expansion, although beginning stocks last August 1, were also larger.

During August-February, domestic disappearance totaled 1.2 million tons, up from the 0.9 million for the same period a year ago. Larger cottonseed meal supplies, lower prices, and good demand are factors boosting usage. With more cattle in feedlots this year, domestic use is expected to continue strong. For the season, total use is estimated at over 2 million tons, up sharply from 1.4 million tons last year. Exports and shipments are up slightly.

Cottonseed meal prices (41-percent protein, Memphis) this season are averaging around $138 per ton, down sharply from $183 last season.

LARD

Output May Drop Below Last Season

Lard production for the 1977/78 marketing year is expected to fall short of last season's output of nearly 1.1 billion pounds, probably totaling somewhere near the 1.0 billion pounds level. Although hog slaughter may be near the 78 million head killed last year, continuing declines in lard yields per hog are expected to pull lard output below the level of last season.

Domestic disappearance likely will approximate the 0.8 billion pounds of last year. Smaller supplies and higher prices will tend to limit the quantities of lard used in direct consumption and also quantities used in the manufacture of shortening and margarine.

Exports and shipments also should be crimped by the smaller supplies. For the entire season, total exports and shipments may approximate 220 million pounds, compared with about 250 million last season.

Lard prices (loose, Chicago) this season are averaging about 21 cents per pound, roughly 1 cent below the comparable period a year ago. Prices rose from about 19 cents last fall to around 23 cents in April. The recent rise reflects the tighter outlook for lard supplies and a general strengthening in other food fat prices. Prices are expected to continue relatively strong into the fall.

PEANUTS

Crushings Down Sharply

Peanut supplies for the 1977/78 marketing year total 4.3 billion pounds, about a tenth below the previous season. A combination of smaller production and smaller carryover stocks account for the decline. The 1977 peanut crop, at 3,726 million pounds, was about 1 percent below 1976. Carryover stocks last August 1, at around 608 million pounds, were down about two-fifths from the carryover on August 1, 1976.

TABLE 10.--PEANUTS (FARMERS' STOCK BASIS): SUPPLY, DISAPPEARANCE, AND PRICE, 1960-77

YEAR BEGINNING AUGUST 1	SUPPLY				DISAPPEARANCE						PRICE PER POUND	
	PRODUCTION	IMPORTS	BEGINNING STOCKS AUGUST 1	TOTAL SUPPLY	EXPORTS AND SHIPMENTS	CRUSHED FOR OIL	SEED, FEED, FARM LOSS, AND SHRINKAGE	DOMESTIC FOOD USE			RECEIVED BY FARMERS	SUPPORT
								MILITARY	CIVILIAN			
									TOTAL	PER CAPITA		
	MILLION POUNDS									POUNDS	CENTS	
1960	1,718	1/	424	2,142	81	362	87	8	1,236	6.9	10.0	10.06
1961	1,657	3	368	2,028	34	256	84	7	1,258	6.9	10.9	11.05
1962	1,719	2	389	2,110	43	302	75	8	1,285	6.9	11.0	11.07
1963	1,942	2	397	2,341	97	380	107	5	1,342	7.1	11.2	11.20
1964	2,099	2	410	2,511	179	473	75	8	1,403	7.4	11.2	11.20
1965 3/	2,390	1	373	2,764	238	517	152	14	1,431	7.4	11.4	11.20
1966	2,416	2	412	2,830	222	587	229	2	1,418	7.3	11.3	11.35
1967	2,477	2	4/ 372	2,851	198	644	156	3	1,493	7.6	11.4	11.35
1968	2,547	2	353	2,902	105	654	247	3	1,536	7.7	11.9	12.01
1969	2,535	1	357	2,893	140	581	242	3	1,574	7.8	12.3	12.38
1970	2,983	2	353	3,338	290	799	213	3	1,580	7.8	12.8	12.75
1971	3,005	2	453	3,460	552	814	79	1/	1,623	7.9	13.6	13.42
1972	3,275	2	392	3,669	521	850	175	---	1,694	8.2	14.5	14.25
1973	3,474	1	429	3,904	709	683	119	---	1,840	8.8	16.2	16.42
1974	3,668	1	553	4,222	740	590	-54	---	1,800	8.5	17.9	18.30
1975	3,857	1	1,146	5,003	434	1,447	192	---	1,870	8.7	19.6	19.70
1976	3,751	1	1,060	4,811	783	1,108	512	---	1,800	8.4	20.0	20.70
1977 5/	3,726	1	608	4,335	1,000	500	610	---	1,825	8.5	20.9	21.5
1978 6/			400									
1979												

1/ LESS THAN 500,000 POUNDS.
2/ BEGINNING WITH 1959 CROP, PRODUCTION REPORTED ON NET WEIGHT BASIS. PRIOR YEARS WERE GROSS WEIGHT.
3/ BEGINNING 1965 REPORTED CRUSH AND EXPORT OF SHELLED PEANUTS CONVERTED TO FARMERS' STOCK BY 1.33 FACTOR.
4/ NET WEIGHT BASIS BEGINNING 1967.
5/ PRELIMINARY.
6/ FORECAST.

TABLE 11.--PEANUT OIL: SUPPLY, DISAPPEARANCE, AND PRICE, 1960-77

YEAR BEGINNING AUGUST	PEANUT OIL									
	SUPPLY						DISAPPEARANCE			PRICE
	PEANUTS CRUSHED			IMPORTS	STOCKS AUGUST 1	TOTAL	EXPORTS AND SHIPMENTS	DOMESTIC DISAPPEARANCE	PEANUTS (OIL EQUIVALENT OF EXPORTS FOR CRUSHING)	PER POUND (CRUDE, S.E. MILLS)
	TOTAL CRUSHINGS (FARMERS' STOCK BASIS)	OIL PRODUCTION								
		TOTAL	YIELD							
	MILLION POUNDS		PERCENT	MILLION POUNDS						CENTS
1960	362	104	28.7	1/	14	118	12	82	12	14.7
1961	256	70	27.3	5	24	99	8	72	1	17.4
1962	302	86	28.5	1	18	105	3	68	1	13.5
1963	380	111	29.2	0	34	145	53	72	8	11.3
1964	473	141	29.8	1/	20	161	87	55	26	14.4
1965	517	156	30.2	1/	20	176	17	106	46	13.2
1966	587	169	28.8	1/	52	221	4	170	42	12.9
1967	644	199	30.9	1/	48	247	6	206	34	12.6
1968	654	205	31.3	1/	34	239	26	180	10	13.2
1969	581	182	31.3	1/	34	216	36	155	12	14.9
1970	799	254	31.7	1/	25	279	44	193	50	17.1
1971	814	260	31.9	1/	42	302	75	195	76	17.1
1972	850	269	31.7	1/	32	301	105	159	56	18.8
1973	683	214	31.3	1	37	252	61	158	68	38.0
1974	590	188	31.9	1/	33	221	35	152	54	42.6
1975	1,447	476	32.9	2	34	512	99	276	---	33.8
1976	1,108	363	32.8	---	137	500	46	232	---	32.1
1977 2/	500	150	30.0	---	222	372	100	160	---	31.7
1978										
1979										

1/ LESS THAN 500,000 POUNDS.
2/ PRELIMINARY.
3/ AUGUST-APRIL AVERAGE.

Peanut crushings during August-March totaled 262 million pounds (farmers' stock basis), down sharply from the 738 million for the same period last season. Crushings are down mainly because of strong peanut exports, which are depleting stocks that otherwise would be channeled into domestic crushings. Also, peanut supplies are smaller this year. Crushings have trailed year-ago levels all season and are expected to do so over the balance of the marketing year. For the entire season, it appears that crushings may total about 500 million pounds, compared with 1.1 billion pounds last season. This should result in about 150 million pounds of peanut oil and 110,000 short tons of peanut meal.

Exports have been strong all season, partly reflecting smaller world peanut supplies. Canada, Western Europe, and Japan are major buyers this year. For the season, it appears that exports will be about 900 million pounds, up from the record 783 million pounds of last season.

Edible Use Up Slightly

During August-March, use of shelled peanuts in edible products totaled 798 million pounds, up slightly from year-ago levels. Increased use in salted peanuts, peanut butter sandwiches, and other miscellaneous uses more than offset lower use in peanut butter and peanut candy. Use has been running near the levels of last year for most of the season. Peanuts used in the manufacture of peanut butter account for about one-half of all shelled peanuts used in edible outlets. Use over the balance of the season likely will continue near the pace of the previous months. Thus, peanuts used in all edible products may slightly exceed the 1,800 million pounds (farmers' stock basis) of 1976/77.

1978-Crop Peanut Support Levels and Sales Policies Announced

On February 15, the Secretary of Agriculture announced that the support levels for 1978-crop quota peanuts would be $420 per short ton and $250 per short ton for additional peanuts. The two-tier level of support is required by the Food and Agriculture Act of 1977. For the 1977 crop, there was only one support level of $430.50 per short ton, or $410.50 per ton after a deduction of $20 for storing, handling, and inspecting. This deduction will not be made under the 1978 program.

"Quota" peanuts are those grown within the poundage quota established for the farm for the 1978 marketing year. "Additional" peanuts are those sold from the farm which are in excess of the quota peanuts. Only "segregation 1" type farmers' stock peanuts (peanuts that are eligible for domestic use and may be milled and sold for the manufacture of edible products) will be eligible for the $420 price support rate.[1]

The Secretary also announced the sales policy for peanuts acquired through the price support program by the Commodity Credit Corporation (CCC) and sold for domestic edible use. Sales of quota and additional peanuts for domestic edible use, including use as seed, will be made by CCC at not less than 105 percent of the quota loan rate, plus costs, if sold on or before December 31, 1978. After December 31, sales will be at not less than 107 per-

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[1] "Segregation 2" peanuts, which include more mixed types or more broken kernels or other damage, and 'segregation 3' peanuts, which have visible mold that may produce aflatoxin, will be eligible for the $250 price support rate. Price supports will be available to producers through warehouse storage loans, farm-stored loans and purchases.

Sales Policies for 1978-Crop Farmers' Stock Peanuts Acquired by the Commodity Credit Corporation

Type of peanuts	Sales policy for:				
	Domestic:			Exports:	
	Edible use		Crushings	Edible grades	For crushings
	Before Dec. 31, 1978	After Dec. 31, 1978			
Quota[1]	Not less than 105 Percent of quota loan value, plus costs	Not less than 107 Percent of quota loan value, plus costs	Sales at competitive prices	Not less than $420 per short ton, plus costs.	Not less than $420 per short ton, plus costs.
Additional[1]	Not less than 105 Percent of quota loan value, plus costs[2]	Not less than 107 Percent of quota loan value, plus costs[2]	Sales at competitive prices	Not less than $400 per short ton	Not less than $250 per short ton, plus costs.

[1] Includes use as seed. [2] Sales of additional peanuts for domestic edible use, if sold and paid for during the harvest season at the time of delivery by the producer, will be made at not less than 100 percent of the quota loan value, plus costs.

cent of the quota loan value, except for sales of additional peanuts for domestic edible use. If the additional peanuts are sold and paid for during the harvest season at the time of delivery by the producer, payments will be made at not less than 100 percent of the quota loan value, plus costs.

On March 20, the Secretary announced that edible grades of the 1978-crop farmers' stock peanuts acquired by the CCC through the price support program would be sold by the CCC for export at not less than $420 per short ton, plus costs, for quota peanuts, and not less than $400 per short ton, for additional peanuts.

On export sales of 1978-crop peanuts sold for crushing only, the CCC sales price will be not less than $420 per short ton, plus costs, on quota peanuts and $250 per short ton, plus costs, on additional peanuts. Peanuts sold for export crushing must be broken prior to export.

Sales of quota and additional 1978-crop peanuts for domestic crushing only will be made by CCC at competitive prices. Use of oil produced from these peanuts will be restricted to domestic markets if the price of the peanuts from which the oil is produced is less than the applicable $420 or $250 per short ton loan rate, plus costs.

PEANUT OIL

Supplies Down Sharply

Peanut oil supplies for the 1977/78 marketing year which began last August 1 are estimated at about 370 million pounds, about a fourth below last season. Smaller oil production, stemming from the reduced peanut crushings, more than offset an increase in carryover stocks.

With smaller supplies, domestic disappearance is expected to fall below the 232 million pounds of last year, probably to around 160 million pounds.

For the entire season, exports may total around 100 million pounds, more than double the 46 million of last year.

Peanut oil prices (crude, Southeast mills) during August-April averaged 33 cents per pound, roughly the same as a year ago. Prices rose from about 24 cents last August to 40 cents in April. The strong price pattern reflects the tighter peanut oil supply situation.

Prices were particularly strong after the Commodity Credit Corporation sold the last of its peanut oil stocks in November. The sales consisted of about 82 million pounds of prime crude peanut oil. Liquidation of these Government stocks, along with smaller peanut oil production resulting from lower peanut crushings, put upward pressure on prices. With peanut oil supplies smaller this year, prices likely will continue at relatively firm levels.

FLAXSEED

Crushings Slightly Above Last Year's Level

Despite larger flaxseed supplies, nearly 20 million bushels compared with 14 million last season, crushings are running barely above year-ago levels. During June-March, crushings totaled slightly under 9 million bushels, a little below a year ago. Crushings were heavier earlier in the season but have slackened seasonally as the industry approaches season's end. For the entire marketing year, it appears that crushings may total about 11 million bushels, slightly above last season's level.

Flaxseed exports so far are above year-ago levels about 0.9 million bushels, compared with around 0.2 million last year. Despite larger world flaxseed supplies, U.S. exports have managed to expand considerably. The Netherlands and Poland are major takers this season. For the entire marketing year, exports could approach 1 million bushels.

Flaxseed prices received by farmers are down sharply from last season, reflecting the larger flaxseed supplies and lower prices for other major oilseed crops. Prices dipped as low as $3.71 per bushel last September, the lowest in about 5 years. But recently, prices have been averaging somewhat over $4. For the entire season, prices are expected to average around $4 per bushel, down considerably from the $7 of 1976/77.

LINSEED OIL

Linseed Oil Use Up

Production of linseed oil for the 1977/78 marketing year, which ends May 31, 1978, is now estimated at about 220 million pounds, slightly above last season's output. However carryover stocks were about double those of June 1, 1976, bringing total linseed oil supplies to around 300 million pounds—about 16 percent above the previous season.

Both domestic disappearance and exports are above last year. Use was heavy early in the season and declined seasonally during winter. The spring pickup should result in an increase over the rest of the marketing year, especially with the larger supplies and lower prices. For the entire season, domestic disappearance is expected to total about 175 million pounds, compared with 164 million last season.

Through February, exports totaled 40 million pounds, up sharply from the 13 million for the same period a year ago. The Netherlands and the United Kingdom are the major buyers this season. Exports for the season are estimated at 60 million pounds, up sharply from the 14 million exported during 1976/77.

Linseed oil prices (raw, tanks, Minneapolis) are averaging about 3 cents below year-ago levels. Prices declined from about 28 cents early in the season to 20 cents last winter.

LINSEED MEAL

Domestic Use Could Rise

Domestic disappearance of linseed meal for the 1977/78 marketing year, which ends May 31, is estimated at about 120,000 short tons—up from the 114,000 tons of last season. Linseed meal exports are estimated at about 85,000 tons, down slightly from the 89,000 tons of 1976/77.

Linseed meal prices (34-percent protein, bulk, Minneapolis) for the season are estimated at about $135 per ton, down considerably from the $163 of last season. Prices ranged from a high of $176 last June to a low of around $100 in September. Since last fall, prices have fluctuated considerably and in recent months have averaged around $135 per ton.

INEDIBLE TALLOW AND GREASES

Output To Decline

Inedible tallow production for the 1977/78 marketing year is estimated at 5.9 billion pounds, approximately 2 percent below last season. Smaller cattle slaughter will mainly contribute to the decline.

Domestic disappearance is estimated at 3 billion pounds, about 6 percent below the previous season. Smaller supplies, higher tallow prices, and strong exports are partially contributing to reduced domestic use.

Tallow exports are strong and are expected to total about 2.9 billion pounds for the season—about 50 million above last year. Exports are up sharply for South America and Western Europe, and about unchanged for Africa and Asia.

Although tallow prices are above last season, they still are considerably below most other major fats and oils, an important factor encouraging exports. However, as tallow production slows over the rest of the season, exports may be cramped. Nevertheless, exports over the balance of the season probably will surpass the 1.5 billion pounds of last April-September.

Tallow prices (bleachable, fancy, Chicago) during October-April averaged 17 cents per pound, about 1 cent above the same period last season. Prices have strengthened recently. In April, prices averaged 19 cents. As tallow supplies tighten, prices are expected to remain at the relatively higher level.

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AN ECONOMETRIC MODEL FOR PREDICTING QUARTERLY PRICES OF COTTONSEED, COTTONSEED OIL, AND COTTONSEED MEAL

By R. McFall Lamm, Jr.*

ABSTRACT: A price behavioral model for cottonseed, cottonseed oil, and cottonseed meal is discussed. The model consists of 3 equations and is suitable for forecasting future prices. Exemplary price predictions are made and the usefulness of simple analytical models is considered.

KEYWORDS: Quarterly model, cottonseed prices, cottonseed oil prices, cottonseed meal prices.

This article is the second in a series designed to present simple econometric models which describe price behavior in markets for vegetable oilseeds, vegetable oils, and vegetable meals. A simple 3-equation model characterizing quarterly price behavior in the cottonseed, cottonseed oil, and cottonseed meal markets is presented. The model is similar to the soybean, soybean oil, and soybean meal model described in the February issue of the *Fats and Oils Situation*, although the unique nature of cottonseed processing requires special treatment in model specification.

The first equation in the model relates the price of cottonseed to cottonseed products. The second equation relates the price of cottonseed oil to the prices of other oils and supply-side variables, and the third equation relates the price of cottonseed meal to its determinants. In the text which follows, the equations of the model are given, some exemplary price predictions are made, and the role of simple models in market analysis is discussed.

Behavioral Relations

Each of the 3 behavioral relations of the model are estimated using 11 years of quarterly data covering the period from first quarter 1967 to fourth quarter 1977. All estimates are ordinary least squares. The regression strategy used for specification selection involved removing variables from a list of theoretically appropriate candidates with contribution to explanatory power and statistical significance serving as criteria for exclusion.

The first equation of the model relates the price of cottonseed to the prices of cottonseed products with specification:

$$(1)\quad \underset{}{p_t} = \underset{(7.62)}{19.49} + \underset{(.43)}{1.32}\,o_t + \underset{(.06)}{.08}\,m_t + \underset{(1.66)}{2.02}\,l_t + \underset{(3.80)}{3.98}\,h_t - \underset{(4.23)}{71.03}\,b_t \qquad R^2 = .91, \qquad d = 2.1$$

where p_t is the price of cottonseed in dollars per tons, o_t is the price of cottonseed oil in cents per pound, m_t is the price of cottonseed meal in dollars per ton, l_t is the price of cottonseed linters in cents per pound, and h_t is the price of cottonseed hulls in cents per pound.

The variable b_t is a binary variable with a value of unity in the second quarter, when no price of cottonseed is available, and zero for all other quarters. Note that the inclusion of this variable implies that the model predicts cottonseed prices for the first, third, and fourth calendar-year quarters only, while prices of cottonseed oil and cottonseed meal may be predicted for all calendar-year quarters. Standard errors are given in parentheses below each estimated coefficient, the R^2 values are unadjusted, and d is the Durbin-Watson statistic. Exact variable definitions are presented in the table on page 21.

Specification of relation (1) rests intuitively on the fact that within any quarter cottonseed can be transformed into cottonseed products. In this way the effects of changes in demands for and prices of cottonseed products are transferred through to the cottonseed market immediately. The estimated coefficients and standard errors for m_t, l_t, and h_t are not highly significant statistically,, indicating that either this transference of price effects does not occur efficiently within the quarter or that there may be problems in estimation. This latter possibility is quite likely in terms of data limitations because the series on l_t and h_t consist of annual values assumed to prevail in each calendar month. In fact, omission of both these variables does not reduce the R^2 value by more than 0.005.

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Accepting equation (1) as presented implies that a 1-cent-per-pound increase in the price of cottonseed oil leads to a \$1.32-per-ton increase in the price of cottonseed. Also, a \$1-per-ton increase in the price of cottonseed meal leads to an 8-cents-per-ton increase in the price of cottonseed; a 1-cent-per-pound increase in the price of cottonseed lint leads to a \$2.02-per-ton increase in the price of cottonseed; and a 1-cent-per pound increase in the price of cottonseed hulls leads to a \$3.98-per-ton increase in the price of cottonseed.

For cottonseed oil, the estimated price behavioral relation is:

$$(2)\quad o_t = \underset{(1.03)}{4.49} - \underset{(.0008)}{.0033}\, z_t - \underset{(.0007)}{.0031}\, x_t + \underset{(.09)}{.43}\, s_t + \underset{(.06)}{.10}\, u_t - \underset{(.07)}{.21}\, a_t + \underset{(.03)}{.11}\, c_t + \underset{(.10)}{.28}\, r_t + \underset{(.07)}{.16}\, o_{t-1}$$

$$R^2 = .98, \qquad d = 1.97$$

where z_t, is cottonseed production in 1000 tons, x_t, is the difference between quarterly cottonseed crushings and production (uses of cottonseed other than for crushing) in 1000 tons, s_t is the price of soybean oil, u_t, is the price of peanut oil, a_t is the price of palm oil, c_t is the price of coconut oil, r_t is the price of corn oil, and$o_{t-1}$is the lagged price of cottonseed oil. All oil prices are in cents-per-pound.

Cottonseed production, z_t, and other uses of cottonseed, x_t, are included in relation (2) to represent supply effects on cottonseed oil price. Since cottonseed production is almost proportional to cotton production, an alternative might be to replace z_t with cotton production. The prices of soybean oil, peanut oil, palm oil, coconut oil, and corn oil are included because these vegetable oils are substitutes for cottonseed oil in many uses. The lagged price of cottonseed oil is included to capture market dynamics from quarter to quarter.

The estimated coefficients imply that an increase in cottonseed production of one million tons would decrease the price of cottonseed oil 3.3-cents-per-pound; an increase in other uses of cottonseed, such as a change in stocks, of .5 million tons would decrease the price of cottonseed oil by 1.5 cents-per-pound; and a 1-cent-per-pound increase in the price of soybean oil, peanut oil, coconut oil, or corn oil would increase the price of cottonseed oil by 0.43, 0.10, 0.11, or 0.28 cents per pound, respectively.

Also, a 1-cent-per-pound increase in the price of palm oil implies a .21-cent-per-pound decrease in the price of cottonseed oil. This is because the large increase in palm oil production over the last decade has lead to a continuing decline in palm oil price over much of the period.

The behavioral relation describing cottonseed meal price is:

$$(3)\quad m_t = \underset{(4.37)}{5.38} + \underset{(2.87)}{8.36}\, n_t + \underset{(.05)}{.46}\, f_t + \underset{(.07)}{.26}\, g_t + \underset{(11.69)}{32.78}\, j_t$$

$$R^2 = .95, \qquad d = 1.88$$

Definition of Variables

Symbol	Definition	Unit of measure
P_t	Price of cottonseed received by farmers	$/ton
o_t	Crude cottonseed oil price, fob tanks valley	cents/lb.
m_t	Price of cottonseed meal, 41% protein, bulk Memphis	$/ton
z_t	Wholesale price of cottonseed linters, f.o.b. mills	cents/lb.
h_t	Wholesale price of cottonseed hulls, Atlanta	cents/lb.
z_t	Cottonseed production	1000 tons
x_t	Difference between cottonseed production and crushings	1000 tons
s_t	Crude soybean oil price, f.o.b. tanks, Decatur	cents/lb.
u_t	Crude peanut oil price, f.o.b. Southeast	cents/lb.
a_t	Price of clarified palm oil, f.o.b. tanks New York	cents/lb.
c_t	Crude coconut oil price, Pacific tanks	cents/lb.
r_t	Crude corn oil price, f.o.b. tanks, Decatur	cents/lb.
n_t	Price of corn received by farmers	$/bushel
f_t	Price of soybean meal, 44% protein, bulk Chicago	$/ton
g_t	Price of peanut meal, 50% protein, Southeast	$/ton

where n_t is the price of corn in dollars per bushel, f_t is the price of soybean meal in dollars per ton, g_t is the price of peanut meal in dollars per ton, and j_t is a binary variable with a value of unity in certain quarters for which peanut meal prices are not available, zero otherwise.

An inspection of relation (3) should indicate a somewhat unusual specification—the supply side variables z_t and x_t are omitted. These variables are excluded from the specification because (1) the inclusion of these variables added virtually nothing to the R^2 value, and (2) these variables, when included, were not statistically significant (t ratios much less than 2).

The omission of z_t and x_t implies that no matter what the level of cotton and cottonseed production, there will be no measureable impact on cottonseed meal price. Only changes in the prices of other meals have any effect. This is not the case for cottonseed oil, however. The reason for this may be that there are some highly specialized demands for cottonseed oil, such as in potato chip and cooking oil production, while there are few specialized demands for cottonseed meal, which is used freely as a substitute for other meals, predominantly as an ingredient in livestock and poultry feeds.

Corn and peanut meal prices are included in equation (3) because they are local regional substitutes for cottonseed meal, which is produced principally in the southern States.

The magnitudes of the estimated coefficents in relation (3) indicate that a 20-cent-per-bushel increase in the price of corn would lead to a \$1.66-per-ton increase in the price of cottonseed meal; a \$1-per-ton increase in the price of soybean meal is associated with a \$.46-per-ton increase in the price of cottonseed meal; and a \$1-per-ton increase in the price of peanut meal leads to a \$0.26-per-ton increase in the price of cottonseed meal.

Price Predictions

The model may be used to make price forecasts by substituting expected values for independent variables in equations (2) and (3) to obtain predicted values for o_t and m_t, and by substituting these predicted values along with expected values of l_t and h_t into relation (1) to obtain a predicted value for p_t. Lagged values are taken at their actual levels when making a one-quarter-ahead forecast or at predicted values for forecasts of values more than one quarter ahead.

The table which follows presents expected values of model variables for 4 quarters of 1978. Expected values of variables consist of staff projections or USDA forecasts of the levels of l_t, h_t, z_t, x_t, s_t, u_t, a_t, c_t, r_t, n_t, f_t, and g_t. The values of p_t, o_t, and m_t are forecast using equations (1), (2), and (3). Forecast values of cottonseed, cottonseed oil, and cottonseed meal prices as presented in the table are conditional, based on the projected levels of the independent variables in the model. For this reason, the results should be interpreted with care.

Predicted prices for calendar year 1978

Varible	Predicted value for quarter			
	I	II	III	IV
p_t	89.81	---	89.90	84.45
o_t	26.3	28.5	26.7	23.3
m_t	141.62	146.61	136.23	131.74
l_t	6.5	6.5	6.3	6.0
h_t	2.8	2.9	2.9	2.9
z_t	---	---	4,700	---
x_t	1,275	1,250	-3,900	1,125
s_t	23.0	26.0	21.0	18.0
u_t	39.0	41.0	38.0	34.0
a_t	29.6	31.0	25.0	22.0
c_t	28.5	31.0	28.0	23.0
r_t	41.5	41.0	37.0	32.0
n_t	2.05	2.20	2.35	2.15
f_t	164.83	170.00	155.00	150.00
g_t	166.48	171.70	153.45	151.50

It is clear that the model does not perform too well in predicting first quarter prices for cottonseed and cottonseed oil, both of which are overpredicted. The basic reason for this is the difference between cottonseed oil prices and peanut and corn oil prices is unusually high in the first quarter.

For the latter part of the year, declines in the price of cottonseed are predicted due to declines in cottonseed oil and meal prices. These declines are based on the assumption of a cotton harvest which would yield 4,700 thousand tons of cottonseed. A large soybean harvest is also expected to depress soybean oil and meal prices in the fourth quarter—further contributing to a decline in cottonseed, cottonseed oil, and cottonseed meal prices.

Role of Simple Models in Price Analysis

A major advantage of simple models like the one presented in equations (1) through (3) is that as soon as additional information becomes available it can be used immediately to revise price forecasts by substituting the new values of independent variables in the appropriate equation. No computer is required to evaluate alternative sets of independent variable values or to make predictions, as is the case with many large-scale forecasting models for which linear reduced forms are not available. The major disadvantage with simple predictive models is that simultaneity is not always adequately considered—the classic problem of defining which variables are independent (endogenous) and which are dependent (exogenous) is not properly addressed. This may cause ordinary least squares estimates to be biased.

While quarterly price predictions for major commodities are generally available, this is not the case with cottonseed. However, given a simple predictive model for cottonseed price, quarterly price predictions for major commodities can be used to predict cottonseed prices. In this respect, a firm or individuals desiring price predictions for cottonseed may find simple predictive models quite useful, and complementary with the use of market information provided by the USDA.

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TABLE 12.--IMPORTS AND EXPORTS OF FATS, OIL, OIL-BEARING MATERIALS, FATS-AND-OIL PRODUCTS (IN TERMS OF OIL). OILMEALS AND FISHMEAL

ITEM	IMPORTS FOR CONSUMPTION					EXPORTS 1/				
	CALENDAR YEARS					CALENDAR YEARS				
	1973	1974	1975	1976	1977	1973	1974	1975	1976	1977
	MILLION POUNDS									
FOOD FATS AND OILS										
BUTTER	45.0	13.1	2.0	2.1	2.2	16.4	7.4	3.2	3.2	4.1
LARD	2/	.3	.1	.1	---	121.7	181.9	143.6	234.5	229.1
BEEF FATS	.5	.1	.1	.1	2/	22.4	65.8	11.0	42.1	15.5
TOTAL, EDIBLE ANIMAL FATS	45.5	13.5	2.2	2.3	2.2	160.5	255.1	157.8	279.8	248.7
CORN OIL	2/	.8	2.2	10.1	1.1	45.1	85.1	72.0	74.3	99.5
COTTONSEED OIL	---	2/	---	---	---	548.3	611.9	657.6	521.6	737.8
COTTONSEED (17 PERCENT)	---	---	---	---	---	5.1	16.6	2.5	24.3	5.5
OLIVE OIL, EDIBLE	59.9	53.4	47.6	62.3	54.1	---	---	---	---	.1
PALM OIL	390.2	411.4	960.4	775.8	550.0	34.5	23.5	32.6	45.8	.1
PEANUT OIL	2/	1.1	.7	1.2	2/	103.9	46.4	27.2	107.2	1.0
PEANUT, SHELLED (43.5 PERCENT)	---	---	---	---	.1	53.4	74.0	42.2	---	2/
SOYBEAN OIL	2/	.1	---	2/	.2	987.5	1,709.9	846.6	1,191.6	1,769.4
SOYBEAN (18.3 PERCENT)	.1	2/	2/	2/	2/	5,351.3	5,634.2	5,050.7	6,197.0	6,546.0
SAFFLOWER SEED (36 PERCENT)	---	---	---	---	---	53.1	18.4	57.7	5.5	23.2
SUNFLOWER SEED (45 PERCENT)	2/	.1	2/	2/	3.2	---	183.4	208.6	395.7	1,371.2
OTHER VEGETABLE OILS	27.0	29.8	22.6	32.5	N.A.	5.4	6.4	3.9	18.0	22.3
TOTAL, EDIBLE VEGETABLE OILS	477.2	496.7	1,033.5	881.9	608.7	7,187.6	8,409.8	7,001.6	8,581.0	10,576.1
SOAP FATS AND OILS										
TALLOW, INEDIBLE	10.1	11.8	15.4	8.8	4.5	2,164.5	2,422.4	1,854.8	2,234.6	2,893.3
GREASES	.3	.1	2/	.5		134.3	200.6	156.5	102.8	199.7
FISH AND FISH LIVER OILS NON-MEDICINAL	3.1	8.2	8.2	14.8	8.6	248.3	202.3	193.2	179.2	89.2
MARINE MAMMAL OILS	2/	---	2/	2.8	2/	---	---	---	---	---
OLIVE OIL, INEDIBLE	.2	.4	.1	.1	.2	---	---	---	---	---
TOTAL, SLOW-LATHERING OILS	13.7	20.5	23.7	27.0	13.3	2,547.1	2,825.3	2,204.5	2,516.6	3,182.2
BABASSU OIL	---	40.1	---	---	9.0	---	---	---	---	---
COCONUT OIL	719.1	542.3	869.1	1,208.0	994.3	25.0	11.4	18.5	58.0	38.5
COPRA (64 PERCENT)	281.6	37.6	---	---	2/	---	---	---	---	---
PALM KERNEL OIL	100.7	145.8	162.9	139.8	154.1	---	---	---	---	---
TOTAL, LAURIC-ACID OILS	1,101.4	765.8	1,032.0	1,347.8	1,157.4	25.0	11.4	18.5	58.0	38.5
DRYING OILS										
FLAXSEED (36.1 PERCENT)	.3	2/	2.8	2/	2/	8.5	7.4	21.6	8.3	19.0
LINSEED OIL	.3	2/	.1	2/	2/	212.8	116.8	87.3	20.9	25.5
OITICIA OIL	4.7	13.7	3.3	2.3	62.2	---	---	---	---	---
TALL OIL	---	---	---	---	---	174.5	207.8	130.8	234.8	155.4
TUNG OIL	21.8	21.0	30.1	34.5	18.8	2.0	.7	1.7	1.6	1.2
TOTAL	26.9	45.1	36.3	36.3	81.0	397.8	332.7	241.4	265.6	201.1
OTHER INDUSTRIAL OILS AND FATS										
CASTOR OIL	101.3	122.7	68.6	118.2	115.0	---	---	---	---	---
FISH-LIVER OILS, MEDICINAL	8.0	10.2	8.2	11.8	10.5	---	---	---	---	---
RAPESEED OIL	13.3	18.1	6.7	12.2	15.2	---	---	---	---	---
WOOL GREASE	9.6	6.6	9.9	9.8	9.3	---	---	---	---	---
OTHER VEGETABLE OILS AND FATS, INEDIBLE	10.1	7.4	5.7	7.2		174.9	118.2	176.8	243.6	116.9
TOTAL	142.3	165.0	99.1	159.2	150.0	174.9	118.2	176.8	243.6	116.9
PRODUCTS										
MARGARINE (FAT CONTENT)	---	---	---	---	---	10.1	12.2	13.9	16.2	16.1
SHORTENING	---	---	---	---	---	34.8	60.9	56.2	64.5	60.0
SALAD PRODUCTS (FAT CONTENT)	---	---	---	---	---	17.2	15.4	4.1	2.8	1.9
SOAP (FAT CONTENT)	3.6	2.9	2.7	3.6	4.6	35.6	27.6	30.7	35.2	29.0
FATTY ACIDS	12.4	19.0	11.2	14.2	13.6	106.4	89.7	51.4	87.4	82.0
TOTAL	16.0	21.9	13.9	17.8	18.2	204.1	205.8	156.3	206.1	189.0
GRAND TOTAL	1,823.0	1,528.5	2,224.7	2,472.8	1,554.0	10,697.0	12,158.3	9,956.9	12,150.7	14,303.8
PROTEIN PRODUCTS										
SOYBEAN FLOWER AND MEAL	---	---	---	---	---	297.0	291.8	183.2	171.1	190.5
OTHER OILSEED FLOUR AND MEAL	---	---	---	---	---	275.6	136.6	46.9	48.1	38.9
VEGETABLE PROTEIN	---	---	---	---	---	4/	13.1	32.1	54.1	63.8
OTHER PROTEIN SUBSTANCES	---	---	---	---	---	15.5	3.3	1.3	2.1	1.3
TOTAL	---	---	---	---	---	588.1	444.8	263.5	275.4	294.5
GLYCERINE	.2	5.5	.4	3.5	12.6	61.8	66.1	45.2	58.2	31.6
	THOUSAND TONS									
OILSEED CAKE AND MEAL										
SOYBEAN	---	---	---	---	---	4,917.2	5,444.2	4,232.0	5,425.4	4,626.5
COTTONSEED	5.7	3.5	.7	13.2	.1	73.9	78.3	15.9	56.3	95.8
LINSEED	1.5	13.7	.1	.1	1.1	126.6	124.8	128.6	118.7	87.2
COPRA	---	---	---	---	---	---	---	---	---	---
CORN	---	---	---	---	---	40.4	8.0	1.4	2.7	.4
OTHER	17.6	17.2	3.9	25.4	40.6	210.0	124.2	38.2	49.1	31.0
TOTAL OILMEALS	24.8	34.4	4.7	38.7	41.8	5,368.1	5,779.5	4,354.0	5,652.2	4,840.9
MEAL EQUIVALENT OF OILSEEDS	91.4	35.0	17.9	69.7	44.2	11,690.5	12,469.3	11,251.4	13,743.7	
FISHMEAL	68.5	68.4	118.5	141.6	78.2	36.7	55.5	12.5	33.1	

1/ INCLUDES RE-EXPORTS AND FOREIGN DONATIONS AND SHIPMENTS TO U.S. TERRITORIES.
2/ LESS THAN 50,000 POUNDS.
3/ NOT REPORTED SEPARATELY BEFORE JANUARY 1974.
4/ LESS THAN 50 TONS.
N.A.--NOT AVAILABLE.

TABLE 13.--FOOD FATS AND OILS: PER CAPITA CONSUMPTION, BY TYPE OF PRODUCT, 1955-77 1/

CALENDAR YEAR	TABLE SPREADS (PRODUCT WEIGHT)			COOKING FATS			OTHER EDIBLE FATS AND OILS (MAINLY COOKING AND SALAD OILS)						TOTAL			
								OIL USED IN						FAT CONTENT		
	BUTTER	MARGA-RINE	TOTAL	LARD (DIRECT USE) 2/	SHORT-ENING	TOTAL	MAYONNAISE AND SALAD DRESSING	POTATO CHIPS 3/	FROZEN FRENCH FRIES 3/	MELLO-RINE 3/	OTHER 4/	TOTAL	PRODUCT WEIGHT 5/	ANIMAL FATS	VEGE-TABLE OILS	TOTAL
								POUNDS								
1955	9.0	8.2	17.2	10.1	11.5	21.6	2.9	6/	6/	.07	7.5	10.5	49.2	20.9	25.0	45.9
1956	8.7	8.2	16.9	9.8	10.9	20.7	3.0	1.0	.08	.07	6.8	10.9	48.5	21.4	23.8	45.2
1957	8.4	8.6	17.0	9.4	10.4	19.8	3.2	1.2	.08	.07	6.2	10.8	47.6	20.2	24.2	44.4
1958	8.3	9.0	17.3	9.6	11.3	20.9	3.3	1.1	.14	.08	5.9	10.5	48.7	20.1	25.2	45.3
1959	7.9	9.2	17.1	8.8	12.6	21.4	3.5	1.3	.16	.09	6.0	11.1	49.6	20.0	26.2	46.2
1960	7.5	9.4	16.9	7.6	12.6	20.2	3.5	1.3	.24	.09	6.5	11.5	48.5	18.5	26.7	45.3
1961	7.4	9.4	16.8	7.7	12.8	20.5	3.5	1.4	.28	.10	5.9	11.2	48.4	19.4	25.7	45.1
1962	7.3	9.3	16.6	7.2	13.4	20.5	3.5	1.5	.28	.10	6.3	11.7	49.0	18.7	27.0	45.7
1963	6.9	9.6	16.5	6.4	13.5	19.9	3.9	1.6	.34	.10	7.2	13.2	49.5	18.2	28.1	46.3
1964	6.9	9.7	16.6	6.3	13.7	20.0	3.9	1.7	.34	.10	8.4	14.2	50.8	17.3	30.3	47.6
1965	6.4	9.9	16.3	6.4	14.1	20.5	4.1	1.8	.52	.10	7.7	14.1	50.9	17.2	30.6	47.8
1966	5.7	10.5	16.2	5.5	15.9	21.4	4.3	1.9	.54	.10	8.3	15.1	52.9	15.9	33.8	49.7
1967	5.5	10.5	16.0	5.4	15.9	21.3	4.4	1.9	.53	.10	8.1	15.2	52.5	16.2	33.2	49.4
1968	5.7	10.8	16.5	5.6	16.3	21.9	4.6	1.9	.55	.10	8.9	16.0	54.4	16.7	34.5	51.2
1969	5.4	10.8	16.2	5.1	17.1	22.2	4.8	2.0	.61	.10	9.2	16.8	55.1	14.9	37.0	51.9
1970	5.3	11.0	16.3	4.7	17.3	22.0	5.0	2.1	.65	.10	10.0	17.9	56.2	14.2	38.8	53.0
1971	5.1	11.1	16.2	4.3	16.8	21.1	5.3	2.0	.87	.09	9.7	18.0	55.4	13.5	38.7	52.2
1972	4.9	11.3	16.2	3.8	17.7	21.5	5.2	1.9	.87	.08	11.7	19.8	57.5	13.4	40.9	54.3
1973	4.8	11.3	16.1	3.4	17.3	20.7	5.4	1.9	.89	.07	12.5	20.8	57.5	11.6	42.7	54.3
1974	4.6	11.3	15.9	3.2	17.0	20.2	6/	1.9	1.23	.06	6/	20.3	56.4	11.8	41.4	53.2
1975	4.8	11.2	16.0	3.0	17.3	20.3	6/	6/	6/	6/	6/	20.3	56.6	10.4	43.0	53.4
1976	4.4	12.2	16.6	2.7	18.1	20.8	6/	6/	6/	6/	6/	22.0	59.3	9.7	46.4	56.1
1977 7/	4.4	11.6	16.0	2.3	17.6	19.9	6/	6/	6/	6/	6/	21.6	57.6	10.0	44.4	54.4
1978																
1979																

1/ CIVILIAN CONSUMPTION ONLY.
2/ EXCLUDES USE IN MARGARINE, SHORTENING, AND NONFOOD PRODUCTS.
3/ ESTIMATED FROM DATA ON PRODUCTION OF ITEM.
4/ COMPUTED AS A RESIDUAL. INCLUDES RETAIL TRADE AND USE OF OIL IN COMMERCIAL FRYING, ROASTING, BAKERY AND OTHER PRODUCTS INCLUDING CONFECTIONERY FATS, TOPPINGS, MILK FILLINGS, AND OTHER SPECIALTY FATS.
5/ TABLE SPREADS AND COOKING FATS PLUS OIL CONTENT OF OTHER EDIBLE FATS AND OILS.
6/ NOT AVAILABLE.
7/ PRELIMINARY

TABLE 14.--SALAD AND COOKING OILS: SUPPLY, DISPOSITION, OILS UTILIZED AND RETAIL PRICE, 1960-77 1/

CALENDAR YEAR	SUPPLY				DISPOSITION			OILS USED IN MANUFACTURE FOR DOMESTIC USE						RETAIL PRICE PER POUND
	PRODUCTION	IMPORTS 2/	STOCKS JAN. 1	TOTAL	EXPORTS 3/	DOMESTIC USE	TOTAL DISPOSITION	SOYBEAN 4/	COTTONSEED 4/	CORN	PEANUT	SAFFLOWER	TOTAL 4/	
	MILLION POUNDS													CENTS
1960	1,915	51	53	2,019	312	1,647	1,959	648	706	247	28	---	1,629	---
1961	2,124	59	60	2,243	352	1,690	2,042	759	748	210	75	---	1,793	---
1962	2,532	58	200	2,790	474	2,043	2,517	1,084	716	210	46	6	2,062	---
1963	2,359	33	273	2,665	440	2,080	2,520	975	688	202	55	27	1,947	---
1964	2,846	67	145	3,058	659	2,280	2,939	1,140	781	241	50	20	2,231	32.0
1965	2,773	44	119	2,936	422	2,428	2,851	1,226	830	239	53	9	2,357	34.9
1966	2,947	49	86	3,082	496	2,502	2,999	1,395	715	217	115	12	2,455	38.6
1967	2,922	56	83	3,061	463	2,518	2,981	1,476	598	231	133	42	2,480	38.0
1968	2,996	63	80	3,139	350	2,709	3,059	1,711	516	242	156	22	2,647	35.4
1969	3,144	58	79	3,281	324	2,886	3,210	1,962	471	248	124	19	2,825	34.7
1970	3,389	62	71	3,522	293	3,153	3,446	2,189	516	246	139	12	3,102	37.7
1971	3,500	62	76	3,638	320	3,242	3,562	2,347	433	248	160	11	3,199	42.2
1972	3,871	67	76	4,014	398	3,530	3,928	2,610	419	259	148	22	3,458	42.9
1973	3,893	60	86	4,039	218	3,747	3,965	2,657	568	286	127	29	3,667	47.0
1974	4,111	53	74	4,238	280	3,861	4,141	2,896	516	276	98	17	3,803	71.1
1975	3,967	48	97	4,112	161	3,860	4,021	2,893	410	280	100	22	3,705	77.2
1976	4,343	62	91	4,496	149	4,243	4,392	3,248	369	294	147	22	4,080	63.5
1977 5/	4,346	54	104	4,504	193	4,206	4,399	3,179	391	287	199	24	4,080	74.3

1/ DATA NOT AVAILABLE PRIOR TO 1959.
2/ OLIVE OIL ONLY.
3/ REFINED AND FURTHER PROCESSED COTTONSEED OIL, SOYBEAN OIL, AND MISCELLANEOUS VEGETABLE OILS. INCLUDES FOREIGN DONATIONS.
4/ EXCLUDES EXPORTS OF REFINED AND FURTHER PROCESSED COTTONSEED OIL AND SOYBEAN OIL.
5/ PRELIMINARY.

TABLE 15.--SALAD AND COOKING OILS: PRODUCTION, FATS AND OILS USED IN MANUFACTURE, AND DOMESTIC CONSUMPTION, 1960-77 1/

CALENDAR YEAR	SALAD AND COOKING OILS 2/			TOTAL OILS USED IN SALAD AND COOKING OIL MANUFACTURE 2/	EDIBLE VEGETABLE OILS CONSUMED IN SALAD AND COOKING OIL MANUFACTURE							COOKING AND SALAD OIL DOMESTIC CONSUMPTION (CIVILIAN)	
	DOMESTIC PRODUCTION	IMPORTS 3/	TOTAL		SOYBEAN	COTTONSEED	CORN	PEANUT	SAFFLOWER	OLIVE	ALL OTHER	TOTAL	PER CAPITA
	MILLION POUNDS												POUNDS
1960	1,915	51	1,966	1,966	887	752	247	28	---	51	1	1,630	9.2
1961	2,124	59	2,183	2,185	1,019	818	210	76	---	59	3	1,661	9.2
1962	2,532	58	2,590	2,591	1,437	817	210	46	6	58	17	2,021	11.0
1963	2,359	33	2,392	2,399	1,317	764	202	55	27	33	1	2,066	11.1
1964	2,846	67	2,913	2,922	1,638	906	241	50	20	67	---	2,249	11.9
1965	2,773	44	2,816	2,824	1,564	915	239	53	9	44	---	2,398	12.5
1966	2,947	49	2,996	3,004	1,860	746	217	115	12	49	5	2,464	12.7
1967	2,922	54	2,976	3,000	1,912	625	231	133	42	54	3	2,474	12.7
1968	2,996	63	3,059	3,063	2,036	541	242	156	22	63	3	2,665	13.5
1969	3,144	58	3,202	3,207	2,244	513	248	124	19	58	2	2,863	14.4
1970	3,389	62	3,451	3,464	2,471	527	246	139	12	62	7	3,125	15.5
1971	3,500	62	3,562	3,589	2,658	442	248	160	11	62	8	3,215	15.7
1972	3,871	67	3,938	3,948	2,985	441	259	148	22	67	26	3,513	17.0
1973	3,893	60	3,953	3,971	2,848	595	286	127	29	60	26	3,737	18.0
1974	4,111	53	4,164	4,165	3,149	545	276	98	17	53	27	3,851	18.4
1975	3,967	48	4,015	4,020	3,032	432	280	100	22	48	105	3,856	18.2
1976	4,343	62	4,405	4,413	3,349	380	204	147	22	62	159	4,234	19.9
1977 4/	4,346	54	4,400	4,414	3,324	400	287	199	24	54	126	4,200	19.6

1/ DATA NOT AVAILABLE PRIOR TO 1959.
2/ INCLUDES SALAD AND COOKING OILS PROCESSED FOR EXPORT.
3/ OLIVE OIL.
4/ PRELIMINARY.

TABLE 16.--SHORTENING: SUPPLY, DISPOSITION, AND PRICE, 1960-77

CALENDAR YEAR	SUPPLY: PRODUCTION: 100 PERCENT VEGETABLE OIL	SUPPLY: PRODUCTION: 100 PERCENT ANIMAL FAT OR BLENDS	SUPPLY: PRODUCTION: TOTAL	SUPPLY: IMPORTS	SUPPLY: STOCKS, JAN. 1	SUPPLY: TOTAL SUPPLY	DISPOSITION: EXPORTS AND SHIPMENTS	DISPOSITION: DOMESTIC DISAPPEARANCE: MILITARY EXCLUDING RELIEF	DISPOSITION: DOMESTIC DISAPPEARANCE: CIVILIAN: TOTAL	DISPOSITION: DOMESTIC DISAPPEARANCE: CIVILIAN: PER CAPITA	PRICE PER POUND ALL VEGETABLE HYDROGENATED 3 LB. TINS EASTERN U.S.
	- - -	- - -	- - -	- - -	MILLION	POUNDS	- - -	- - -	- - -	POUNDS	CENTS
1960	---	---	2,313	---	115	2,428	31	39	2,238	12.6	24.6
1961	---	---	2,456	---	120	2,576	2/92	51	2,311	12.8	27.7
1962	---	---	2,689	---	123	2,812	2/139	39	2,469	13.4	25.[illegible]
1963	---	---	2,584	---	165	2,749	2/66	39	2,525	13.5	22.3
1964	3/	3/	2,664	---	119	2,783	21	43	2,598	13.7	22.5
1965	1,852	940	2,792	---	121	2,913	45	57	2,695	14.1	26.4
1966	2,113	1,068	3,181	---	117	3,298	41	59	3,079	15.9	27.1
1967	2,077	1,149	3,226	---	119	3,345	39	58	3,108	15.9	26.5
1968	2,139	1,173	3,312	---	139	3,451	44	53	3,211	16.3	25.5
1969	2,318	1,163	3,481	---	143	3,624	32	54	3,398	17.1	25.9
1970	2,411	1,177	3,588	---	139	3,727	37	60	3,497	17.3	29.4
1971	2,329	1,186	3,515	---	133	3,648	31	61	3,429	16.8	32.0
1972	2,616	1,115	3,731	---	128	3,859	33	4[illegible]	3,650	17.7	31.9
1973	2,680	956	3,636	---	127	3,763	35	20	3,593	17.3	36.5
1974	2,685	1,018	3,703	---	115	3,818	61	51	3,571	17.0	56.8
1975	2,839	874	3,713	---	134	3,847	56	5	3,661	17.3	57.2
1976	3,033	896	3,929	---	125	4,054	65	3	3,858	18.1	45.9
1977 4/	2,873	968	3,841	---	128	3,969	56	10	3,788	17.6	55.0

1/ LESS THAN 500,000 POUNDS. 2/ INCLUDES ESTIMATES OF FOREIGN DONATIONS, NOT REPORTED BY CENSUS. 3/ NOT REPORTED PRIOR TO 1965. 4/ PRELIMINARY

TABLE 17.- SHORTENING: PRODUCTION, FATS AND OILS USED IN MANUFACTURE, AND DOMESTIC CONSUMPTION, 1960-77

CALENDAR YEAR	SHORTENING PRODUCTION	FATS AND OILS CONSUMED IN SHORTENING MANUFACTURE: TOTAL FATS AND OILS	EDIBLE VEGETABLE OILS: SOYBEAN	EDIBLE VEGETABLE OILS: COTTONSEED	EDIBLE VEGETABLE OILS: PALM	EDIBLE VEGETABLE OILS: COCONUT	EDIBLE VEGETABLE OILS: TOTAL 1/	ANIMAL FATS: LARD	ANIMAL FATS: BEEF FATS	ANIMAL FATS: TOTAL	SHORTENING DOMESTIC CONSUMPTION CIVILIAN: TOTAL	SHORTENING DOMESTIC CONSUMPTION CIVILIAN: PER CAPITA
	- - -	- - -	- - -	- - -	- - -	MILLION POUNDS	- - -	- - -	- - -	- - -	- - -	POUNDS
1960	2,313	2,302	1,169	365	---	11	1,554	480	268	748	2,238	12.6
1961	2,456	2,459	1,160	356	20	26	1,581	530	348	878	2,311	12.8
1962	2,689	2,696	1,362	367	16	27	1,787	571	338	909	2,469	13.4
1963	2,584	2,611	1,228	330	14	19	1,604	594	413	1,007	2,525	13.5
1964	2,664	2,693	1,388	378	11	18	1,817	446	430	876	2,598	13.7
1965	2,792	2,768	1,471	403	14	20	1,924	456	388	844	2,695	14.1
1966	3,181	3,191	1,734	370	38	38	2,209	491	491	982	3,079	15.9
1967	3,226	3,243	1,741	273	61	40	2,161	576	506	1,082	3,108	15.9
1968	3,312	3,326	1,842	248	72	41	2,238	601	487	1,088	3,211	16.3
1969	3,481	3,505	2,101	248	110	46	2,347	475	483	958	3,398	17.1
1970	3,588	3,604	2,182	276	90	45	2,628	430	546	976	3,497	17.3
1971	3,515	3,568	2,047	168	171	56	2,473	520	575	1,095	3,429	16.8
1972	3,731	3,806	2,163	189	5	82	2,755	441	610	1,051	3,650	17.7
1973	3,636	3,813	2,268	199	333	86	2,936	341	536	877	3,593	17.3
1974	3,703	3,753	2,177	194	304	61	2,799	317	637	954	3,571	17.0
1975	3,713	3,893	2,025	154	758	106	3,126	165	602	767	3,661	17.3
1976	3,929	3,939	2,323	128	532	128	3,161	156	622	778	3,858	18.1
1977 2/	3,841	3,856	2,281	160	370	78	2,924	185	747	932	3,788	17.6

1/ INCLUDES SMALL QUANTITIES OF PEANUT OIL, CORN OIL, SAFFLOWER OIL, VEGETABLE STEARINE AND GLYCERIDES, NOT SHOWN SEPARATELY. 2/ PRELIMINARY.

TABLE 18.--BUTTER (ACTUAL WEIGHT): SUPPLY, DISPOSITION, AND PRICE, 1960-77

CALENDAR YEAR	SUPPLY: PRODUCTION: CREAMERY	SUPPLY: PRODUCTION: FARM	SUPPLY: PRODUCTION: TOTAL	SUPPLY: IMPORTS	SUPPLY: STOCKS JAN. 1 1/	SUPPLY: TOTAL SUPPLY	DISPOSITION: EXPORTS AND SHIPMENTS TO U.S. TERRITORIES	DISPOSITION: DOMESTIC DISAPPEARANCE: TOTAL	DOMESTIC DISAPPEARANCE: DIRECT USE AS BUTTER: PROCUREMENT	DIRECT USE AS BUTTER: CIVILIAN	DIRECT USE AS BUTTER: CIVILIAN PER CAPITA	PRICE PER POUND CREAMERY GRADE A CHICAGO
	- - -	- - -	- - -	- - -	- - -	MILLION POUNDS	- - -	- - -	- - -	- - -	POUNDS	CENTS
1960	1,373	63	1,436	3	31	1,470	10	1,382	50	1,332	7.5	59.0
1961	1,484	52	1,536	2	77	1,615	9	1,381	46	1,335	7.4	60.5
1962	1,537	42	1,579	2	3/225	1,806	4/42	1,405	64	1,341	7.3	58.6
1963	1,420	34	1,454	2	3/359	1,815	4/199	1,345	64	1,281	6.9	58.2
1964	1,442	27	1,469	2	3/271	1,742	4/307	1,364	66	1,297	6.8	59.1
1965	1,325	21	1,346	2	71	1,419	75	1,292	60	1,232	6.4	60.2
1966	1,112	16	1,128	2	52	1,182	18	1,132	33	1,099	5.7	66.6
1967	1,225	13	1,238	2	32	1,272	7	1,096	21	1,076	5.5	66.7
1968	1,165	10	1,175	2	169	1,346	40	1,189	72	1,117	5.7	66.9
1969	1,118	8	1,126	2	117	1,245	27	1,130	50	1,081	5.4	67.6
1970	1,137	6	1,143	2	89	1,234	9	1,106	45	1,061	5.3	69.4
1971	1,144	---	1,144	2	119	1,265	99	1,069	30	1,039	5.1	68.4
1972	1,102	---	1,102	2	97	1,201	54	1,040	23	1,017	4.9	68.6
1973	919	---	919	45	107	1,071	16	1,009	9	1,000	4.8	69.8
1974	962	---	962	13	46	1,021	7	965	9	955	4.6	65.7
1975	980	---	980	2	49	1,031	3	1,017	9	1,008	4.8	79.3
1976	984	---	984	2	11	997	3	947	7	940	4.4	91.2
1977 5/	1,094	---	1,094	2	47	1,143	4	951	6	945	4.4	99.1

1/ INCLUDES STOCKS HELD BY U.S. DEPARTMENT OF AGRICULTURE. 2/ LESS THAN 500,000 POUNDS. 3/ INCLUDES ESTIMATES OF BUTTER OIL, GHEE, AND CANNED BUTTER. 4/ INCLUDES ESTIMATES OF BUTTER, BUTTER OIL, AND GHEE SHIPPED UNDER FOREIGN DONATIONS PROGRAM 5/ PRELIMINARY.

TABLE 19.--LARD: SUPPLY, DISPOSITION, AND PRICE, 1950-77

CALENDAR YEAR	SUPPLY						DISPOSITION						PRICE PER POUND
	PRODUCTION				STOCKS JAN. 1	TOTAL 1/	EXPORTS AND SHIPMENTS			DOMESTIC DISAPPEARANCE			LOOSE CHICAGO
	FEDERALLY INSPECTED	OTHER COMMERCIAL	FARM	TOTAL			EXPORTS	SHIPMENTS	TOTAL	TOTAL	DIRECT USE TOTAL	DIRECT USE PER CIVILIAN	
	MILLION POUNDS											POUNDS	CENTS
1960	2,127	292	143	2,562	124	2,686	620	61	681	1,912	1,358	7.6	8.8
1961	2,118	266	130	2,514	94	2,608	417	69	485	2,015	1,393	7.7	9.6
1962	2,104	261	111	2,476	110	2,586	422	66	488	1,970	1,314	7.1	8.7
1963	2,117	256	100	2,473	128	2,601	538	57	594	1,887	1,190	6.4	8.3
1964	2,153	235	85	2,473	119	2,592	682	64	747	1,718	1,193	6.3	9.7
1965	1,772	208	65	2,045	127	2,172	251	75	325	1,785	1,225	6.4	11.7
1966	1,696	202	32	1,929	62	1,991	158	63	220	1,670	1,071	5.5	11.2
1967	1,835	209	32	2,076	100	2,176	189	58	247	1,778	1,055	5.4	7.8
1968	1,862	170	30	2,062	151	2,213	175	58	234	1,886	1,106	5.6	6.2
1969	1,755	124	25	1,904	94	1,998	262	67	329	1,599	1,011	5.1	9.7
1970	1,776	112	25	1,913	70	1,983	366	53	419	1,482	939	4.7	11.6
1971	1,830	106	24	1,960	82	2,042	282	62	344	1,598	880	4.3	10.8
1972	1,464	76	18	1,558	100	1,658	164	25	189	1,418	787	3.8	10.4
1973	1,181	55	18	1,254	51	1,305	113	8	121	1,140	705	3.4	19.8
1974	1,286	58	22	1,366	44	1,410	161	21	182	1,192	681	3.2	28.5
1975	956	39	17	1,012	36	1,048	88	56	144	876	632	3.0	30.9
1976	1,010	33	17	1,060	28	1,088	181	54	235	819	585	2.7	17.8
1977 2/	1,021	3/	16	1,037	34	1,071	182	47	229	794	502	2.3	21.3

1/ INCLUDES IMPORTS, WHICH WERE LESS THAN 500,000 POUNDS IN ALL YEARS EXCEPT 1952, WHEN 7 MILLION POUNDS WERE IMPORTED.
2/ PRELIMINARY.
3/ INCLUDED IN F.I.

TABLE 20.--MARGARINE (ACTUAL WEIGHT): SUPPLY, DISPOSITION, AND PRICE, 1960-77

CALENDAR YEAR	SUPPLY						DISPOSITION				PRICE PER POUND
	PRODUCTION				STOCKS JAN. 1	TOTAL	EXPORTS AND SHIPMENTS	DOMESTIC DISAPPEARANCE			COLORED, DELIVERED EASTERN UNITED STATES
	ONE POUND UNIT SOFT	ONE POUND UNIT TOTAL	ALL OTHER UNITS	TOTAL				MILITARY	CIVILIAN TOTAL	CIVILIAN PER CAPITA	
	MILLION POUNDS									POUNDS	CENTS
1960	---	1,556	139	1,695	34	1,729	10	11	1,676	9.4	23.8
1961	---	1,583	141	1,724	33	1,756	8	7	1,708	9.4	26.8
1962	---	1,578	148	1,726	33	1,759	9	2	1,709	9.3	25.6
1963	---	1,632	162	1,794	39	1,833	9	2	1,785	9.6	23.8
1964	---	1,679	178	1,857	36	1,893	9	2	1,835	9.7	24.1
1965	---	1,726	178	1,904	48	1,952	8	11	1,891	9.9	26.1
1966	---	1,882	228	2,110	42	2,152	14	46	2,038	10.5	26.6
1967	---	1,859	255	2,114	53	2,167	15	47	2,046	10.5	25.7
1968	282	1,898	243	2,141	60	2,201	10	12	2,130	10.8	25.6
1969	356	1,945	237	2,182	49	2,231	12	13	2,154	10.8	26.0
1970	422	1,975	255	2,230	52	2,282	13	2	2,223	11.0	28.9
1971	481	1,999	291	2,290	46	2,336	13	1	2,264	11.1	30.8
1972	542	2.061	303	2,364	57	2,421	13	1	2,338	11.3	31.3
1973	622	2,099	260	2,359	69	2,428	13	4	2,350	11.3	34.0
1974	610	2,114	284	2,398	61	2,459	15	9	2,370	11.3	51.2
1975	511	2,070	329	2,399	64	2,463	17	11	2,375	11.2	52.5
1976	582	2,262	366	2,628	60	2,688	20	6	2,595	12.2	44.3
1977 1/	630	2,234	301	2,535	80	2,615	20	7	2,499	11.6	51.0

1/ PRELIMINARY.

TABLE 21.--MARGARINE: PRODUCTION, FATS AND OILS USED IN MANUFACTURE, AND DOMESTIC CONSUMPTION, 1960-77

CALENDAR YEAR	MARGARINE PRODUCTION (ACTUAL WEIGHT)	FATS AND OILS CONSUMED IN MARGARINE MANUFACTURE									MARGINE DOMESTIC CONSUMPTION (CIVILIAN)		
		TOTAL	EDIBLE VEGETABLE OILS					ANIMAL FATS			TOTAL (ACTUAL WEIGHT)	PER CAPITA	
			SOYBEAN	COTTONSEED	CORN	SAFFLOWER	TOTAL 1/	LARD	BEEF FATS	TOTAL		ACTUAL WEIGHT	FAT CONTENT
	MILLION POUNDS											POUNDS	
1960	1,695	1,367	1,105	136	55	---	1,305	56	6	62	1,676	9.4	7.6
1961	1,724	1,386	1,062	139	89	---	1,308	72	6	78	1,708	9.4	7.6
1962	1,726	1,394	1,058	106	99	---	1,314	70	10	80	1,709	9.3	7.5
1963	1,794	1,451	1,049	104	136	22	1,356	84	11	95	1,785	9.6	7.7
1964	1,857	1,500	1,139	101	150	12	1,411	64	25	89	1,835	9.7	7.8
1965	1,904	1,535	1,112	114	161	20	1,436	90	9	99	1,891	9.9	8.0
1966	2,110	1,710	1,294	106	157	46	1,623	82	5	87	2,038	10.5	8.5
1967	2,114	1,703	1,249	78	176	42	1,568	125	10	135	2,046	10.5	8.4
1968	2,141	1,720	1,240	70	179	42	1,552	153	15	168	2,130	10.8	8.7
1969	2,182	1,743	1,332	75	172	44	1,644	86	13	99	2,154	10.8	8.6
1970	2,230	1,794	1,410	68	185	22	1,695	90	9	99	2,223	11.0	8.9
1971	2,290	1,831	1,385	63	186	19	1,662	159	10	169	2,264	11.1	8.9
1972	2,364	1,886	1,461	65	194	20	1,748	128	10	138	2,338	11.3	9.0
1973	2,359	1,891	1,491	63	213	32	1,811	72	8	80	2,350	11.3	9.0
1974	2,398	1,904	1,457	58	188	16	1,737	160	7	167	2,370	11.3	9.0
1975	2,399	1,920	1,568	46	188	7	1,868	45	7	52	2,375	11.2	9.0
1976	2,628	2,094	1,671	51	218	10	2,050	37	7	44	2,595	12.2	9.7
1977 2/	2,535	2,027	1,584	44	243	8	1,947	73	7	80	2,499	11.6	9.3

1/ INCLUDES SMALL QUANTITIES OF PEANUT OIL, COCONUT OIL, PALM OIL, AND VEGETABLE STEARINE THAT ARE NOT SHOWN SEPARATELY.
2/ PRELIMINARY.

TABLE 22.--DOMESTIC DISAPPEARANCE OF FOOD AND NONFOOD FATS AND OILS, BY END PRODUCTS, TOTAL AND PER PERSON, YEAR BEGINNING OCTOBER BY QUARTERS, WITH COMPARISONS, 1974 TO DATE 1/

YEAR AND QUARTER	UNIT	FOOD							NONFOOD						ALL PRODUCTS (FAT CONTENT)
		BUTTER (ACTUAL WEIGHT)	MARGARINE (ACTUAL WEIGHT)	LARD (DIRECT)	BAKING AND FRYING FATS (SHORTENING)	SALAD AND COOKING OILS	OTHER EDIBLE	TOTAL (FAT CONTENT)	SOAP	DRYING OILS	ANIMAL FEEDS	FATTY ACIDS	OTHER	TOTAL	
1974-75															
OCT.-DEC.:															
TOTAL	MIL. LB.	283	625	180	901	911	107	2,823	180	116	301	467	190	1,254	4,078
PER PERSON	LB.	1.3	2.9	.8	4.2	4.3	.5	13.3	.8	.5	1.4	2.2	.9	5.9	19.2
JAN.-MAR.:															
TOTAL	MIL. LB.	279	605	157	863	913	101	2,741	191	77	335	373	196	1,172	3,913
PER PERSON	LB.	1.3	2.8	.7	4.1	4.3	.5	12.9	.9	.4	1.6	1.8	.9	5.5	18.4
APR.-JUNE:															
TOTAL	MIL. LB.	254	543	158	856	960	98	2,712	195	111	319	390	279	1,294	4,007
PER PERSON	LB.	1.2	2.5	.7	4.0	4.5	.5	12.7	.9	.5	1.5	1.8	1.3	6.1	18.8
JULY-SEPT.:															
TOTAL	MIL. LB.	244	569	149	923	1,016	118	2,857	200	139	321	424	256	1,340	4,196
PER PERSON	LB.	1.1	2.7	.7	4.3	4.8	.5	13.4	.9	.6	1.5	2.0	1.2	6.3	19.6
SEASON:															
TOTAL	MIL. LB.	1,059	2,343	644	3,545	3,800	423	11,134	767	442	1,275	1,655	921	5,060	16,194
PER PERSON	LB.	5.0	11.0	3.0	16.6	17.8	2.0	52.2	3.6	2.1	6.0	7.8	4.3	23.7	76.0
1975-76 5/															
OCT.-DEC.:															
TOTAL	MIL. LB.	244	669	169	1,023	971	121	3,015	222	103	309	430	146	1,209	4,224
PER PERSON	LB.	1.1	3.1	.8	4.8	4.5	.6	14.1	1.0	.5	1.4	2.0	.7	5.6	19.7
JAN.-MAR.:															
TOTAL	MIL. LB.	248	703	164	997	1,056	112	3,090	253	148	308	471	202	1,382	4,472
PER PERSON	LB.	1.2	3.3	.8	4.6	4.9	.5	14.4	1.2	.7	1.4	2.2	.9	6.4	20.8
APR.-JUNE:															
TOTAL	MIL. LB.	212	614	124	938	1,085	121	2,927	241	141	377	468	284	1,512	4,439
PER PERSON	LB.	1.0	2.9	.6	4.4	5.0	.6	13.6	1.1	.7	1.8	2.2	1.3	7.0	20.7
JULY-SEPT.:															
TOTAL	MIL. LB.	213	590	152	981	1,082	106	2,962	226	139	403	444	224	1,436	4,398
PER PERSON	LB.	1.0	2.7	.7	4.6	5.0	.5	13.8	1.0	.6	1.9	2.1	1.0	6.7	20.4
SEASON:															
TOTAL	MIL. LB.	917	2,576	608	3,939	4,195	461	11,994	943	530	1,396	1,813	857	5,540	17,533
PER PERSON	LB.	4.3	12.0	2.8	18.3	19.5	2.1	55.8	4.4	2.5	6.5	8.4	4.0	25.8	81.6
1976-77 2/															
OCT.-DEC.:															
TOTAL	MIL. LB.	269	694	145	945	1,020	106	2,982	223	119	376	465	197	1,381	4,363
PER PERSON	LB.	1.2	3.2	.7	4.4	4.7	.5	13.8	1.0	.6	1.7	2.2	.9	6.4	20.2
JAN.-MAR.:															
TOTAL	MIL. LB.	242	702	117	953	1,024	109	2,958	252	132	360	438	208	1,380	4,338
PER PERSON	LB.	1.1	3.2	.5	4.4	4.7	.5	13.7	1.2	.6	1.6	2.0	1.0	6.4	20.1
APR.-JUNE:															
TOTAL	MIL. LB.	208	541	107	906	1,020	110	2,744	243	147	374	497	278	1,538	4,282
PER PERSON	LB.	.9	2.5	.5	4.2	4.7	.5	12.7	1.1	.7	1.7	2.3	1.3	7.1	19.8
JULY-SEPT.:															
TOTAL	MIL. LB.	230	590	139	912	1,039	96	2,842	214	153	346	394	226	1,332	4,174
PER PERSON	LB.	1.1	2.7	.6	4.2	4.8	.4	13.1	1.0	.7	1.6	1.8	1.0	6.1	19.2
SEASON:															
TOTAL	MIL. LB.	948	2,526	508	3,717	4,102	420	11,526	932	552	1,446	1,793	909	5,632	17,158
PER PERSON	LB.	4.4	11.7	2.3	17.2	19.0	1.9	53.3	4.3	2.6	6.7	8.3	4.2	26.0	79.3
1977-78 2/															
OCT.-DEC.:															
TOTAL	MIL. LB.	272	674	140	1,026	1,124	109	3,154	223	110	334	470	222	1,359	4,573
PER PERSON	LB.	1.2	3.1	.6	4.7	5.2	.5	14.5	1.0	.5	1.5	2.2	1.0	6.2	20.7
JAN.-MAR.:															
TOTAL	MIL. LB.														
PER PERSON	LB.														
APR.-JUNE:															
TOTAL	MIL. LB.														
PER PERSON	LB.														
JULY-SEPT.:															
TOTAL	MIL. LB.														
PER PERSON	LB.														
SEASON:															
TOTAL	MIL. LB.														
PER PERSON	LB.														

1/ DOMESTIC DISAPPEARANCE DATA ARE COMPUTED BY ERS.
2/ PRELIMINARY.

TABLE 23.--CURRENT U.S. FATS AND OILS STATISTICS

ITEM	UNIT	CROP YEAR		1977			1978 1/	
		1976/77	1977/78	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY
BUTTER CREAMERY (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	1,085.7		84.9	81.8	89.3	108.3	95.7
STOCKS, END OF MONTH, TOTAL	MIL. LBS.	203.4		198.3	193.7	185.0	195.7	216.0
EXPORTS AND SHIPMENTS	MIL. LBS.	4.1		0.2	0.1	0.4	0.4	0.4
DOMESTIC DISAPPEARANCE	MIL. LBS.	948.5		90.0	86.4	97.7	97.6	75.4
CASTOR OIL (YEAR BEG. OCT.)								
IMPORTS	MIL. LBS.	117.7		13.8	10.1	1.7	---	169.1
STOCKS, END OF MONTH	MIL. LBS.	31.0		26.0	20.4	13.3	10.6	18.1
FACTORY CONSUMPTION	MIL. LBS.	106.6		6.6	10.5	7.8	6.6	8.3
COCONUT OIL (YEAR BEG. OCT.)								
IMPORTS	MIL. LBS.	1,115.4		29.4	75.1	94.5	65.5	127.1
STOCKS, END OF MONTH	MIL. LBS.	136.7		128.6	114.6	133.2	146.5	157.1
EXPORTS AND SHIPMENTS	MIL. LBS.	31.4		10.2	2.2	5.4	.7	1.1
DOMESTIC DISAPPEARANCE	MIL. LBS.	1,074.7		27.3	86.8	70.4	52.1	115.5
CORN OIL (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	668.6		58.9	58.0	50.1	54.9	51.6
IMPORTS	MIL. LBS.	10.1		---	---	---	---	1.1
STOCKS, END OF MONTH	MIL. LBS.	45.8		39.5	48.3	33.4	26.7	31.6
EXPORTS AND SHIPMENTS	MIL. LBS.	93.0		12.5	5.0	11.4	8.1	3.4
DOMESTIC DISAPPEARANCE	MIL. LBS.	580.8		52.7	44.2	53.6	53.5	44.5
COTTONSEED (YEAR BEG. AUG.)								
CRUSHINGS	1000 TONS	3,498.7		369.7	458.9	431.4	442.7	403.2
STOCKS AT MILLS, END OF MONTH	1000 TONS	283.4		1,982.6	3,029.6	3,246.4	2,917.8	2,565 8
EXPORTS AND SHIPMENTS	1000 TONS	26.0		0.4	2.7	1.6	2.1	4.4
COTTONSEED MEAL (YEAR BEG. AUG.)								
PRODUCTION	1000 TONS	1,571.4		167.9	210.2	199.4	203.2	187.8
STOCKS, END OF MONTH	1000 TONS	114.6		43.4	35.5	28.8	25.6	32.2
EXPORTS AND SHIPMENTS	1000 TONS	74.3		2.9	17.6	6.2	2.5	1.4
DOMESTIC DISAPPEARANCE	1000 TONS	1,453.4		180.8	200.5	199.9	206.4	179.8
COTTONSEED OIL (YEAR BEG. AUG.)								
PRODUCTION	MIL. LBS.	1,141.1		115.1	146.3	140.2	141.6	129.5
STOCKS, END OF MONTH	MIL. LBS.	153.0		91.5	112.4	132.7	151.4	157.1
EXPORTS AND SHIPMENTS	MIL. LBS.	610.9		35.4	64.2	67.7	50.7	68.4
DOMESTIC DISAPPEARANCE	MIL. LBS.	534.6		67.5	61.3	52.2	72.2	55.5
FATTY ACIDS (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	1,144.3		105.2	100.0	105.1	98:1	107.0
IMPORTS	MIL. LBS.	14.0		1.3	0.8	0.9	---	---
STOCKS, END OF MONTH	MIL. LBS.	97.7		104.1	102.4	109.9	114.0	111.1
EXPORTS AND SHIPMENTS	MIL. LBS.	85.5		4.3	7.8	2.3	4.0	3.5
DOMESTIC DISAPPEARANCE	MIL. LBS.	1,068.6		95.8	94.7	96.2	90.8	106.5
FISH MEAL (YEAR BEG. OCT.)								
PRODUCTION	1000 TONS	333.8		25.2	15.7	12.9	7.1	---
IMPORTS	1000 TONS	105.0		2.9	2.3	---	3.0	1.5
EXPORTS AND SHIPMENTS	1000 TONS	36.0		11.8	0.7	5.0	4.1	---
FISH, SPERM AND MAMMAL OIL (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	134.0		10.9	3.6	2.3	1.9	---
IMPORTS	MIL. LBS.	9.3		1.8	1.5	---	0.4	2.2
STOCKS, END OF MONTH	MIL. LBS.	11.1		11.1	11.0	11.0	10.2	9.9
EXPORTS AND SHIPMENTS	MIL. LBS.	116.8		6.9	3.4	6.9	2.5	2.4
FACTORY CONSUMPTION	MIL. LBS.	54.7		4.3	5.7	4.5	---	---
FLAXSEED (YEAR BEG. JUNE)								
IMPORTS	1000 BU.	2,169.0		---	2,411.0	7,671.0	---	---
CRUSHINGS	1000 BU.	10,677.0		807.0	686.0	929.0	973.0	736.0
EXPORTS AND SHIPMENTS	1000 BU.	196.0		453.0	476.0	---	---	---
LINSEED MEAL (YEAR BEG. JUNE)								
PRODUCTION	1000 TONS	201.8		14.4	13.0	17.6	---	13.5
STOCKS, END OF MONTH	1000 TONS	5.7		---	---	---	---	---
EXPORTS AND SHIPMENTS	1000 TONS	89.1		11.8	13.7	0.4	8.9	7.0
DOMESTIC DISAPPEARANCE	1000 TONS	114.1		2.7	-0.5	13.3	-8.8	6.6
LINSEED OIL (YEAR BEG. JUNE)								
PRODUCTION	MIL. LBS.	216.5		15.5	13.5	18.8	---	14.6
STOCKS, END OF MONTH	MIL. LBS.	88.1		72.6	74.2	89.2	93.2	92.1
EXPORTS AND SHIPMENTS	MIL. LBS.	13.8		11.1	3.0	0.1	---	---
DOMESTIC DISAPPEARANCE	MIL. LBS.	163.5		10.9	8.9	3.8	-4.3	15.7
GLYCERINE (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	309.5		29.5	27.8	27.2	27.7	28.4
STOCKS, END OF MONTH	MIL. LBS.	48.2		50.6	55.3	56.7	55.1	56.5
EXPORTS AND SHIPMENTS	MIL. LBS.	33.2		2.7	1.3	4.1	0.9	0.7
DOMESTIC DISAPPEARANCE	MIL. LBS.	292.1		24.5	22.1	25.5	---	---
LARD COMMERCIAL (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	1,055.0		93.0	102.0	85.0	93.0	75.0
STOCKS, END OF MONTH	MIL. LBS.	31.7		32.1	32.1	28.1	30.0	29.7
EXPORTS AND SHIPMENTS	MIL. LBS.	248.7		27.5	18.2	20.2	6.7	11.1
DIRECT USE	MIL. LBS.	502.4		42.7	58.5	37.8	---	---
DOMESTIC DISAPPEARANCE	MIL. LBS.	828.2		65.1	83.7	68.8	75.2	64.6
MARGARINE, ACTUAL WEIGHT (YEAR BEG. OCT.)								
PRODUCTION, TOTAL	MIL. LBS.	2,532.9		221.7	229.0	242.0	219.8	223.8
SOFT-1 POUND UNITS	MIL. LBS.	642.7		53.8	52.2	53.0	46.0	51.2
1 POUND UNITS-TOTAL	MIL. LBS.	2,244.6		194.8	197.5	216.0	185.1	187.2
STOCKS, END OF MONTH	MIL. LBS.	58.9		74.0	70.0	73.2	61.8	69.4
EXPORTS AND SHIPMENTS	MIL. LBS.	20.1		1.3	0.9	2.7	0.3	0.5
DOMESTIC DISAPPEARANCE	MIL. LBS.	2,526.3		205.5	232.1	236.1	237.5	215.7
MEAT MEAL AND TANKAGE (YEAR BEG. OCT.)								
PRODUCTION, TOTAL	MIL. LBS.	4,378.2		405.0	423.1	407.8	375.5	362.2
IMPORTS	MIL. LBS.	19.0		0.9	0.9	1.0	0.4	---
PALM OIL (YEAR BEG. OCT.)								
IMPORTS	MIL. LBS.	660.8		25.7	43.6	17.9	31.4	44.2
STOCKS, END OF MONTH	MIL. LBS.	131.3		105.5	105.1	87.2	93.6	105.0
EXPORTS AND SHIPMENTS	MIL. LBS.	57.1		13.6	4.7	6.1	3.4	1.5
DOMESTIC DISAPPEARANCE	MIL. LBS.	610.5		37.9	39.3	29.7	21.6	31.3
PALM KERNEL OIL (YEAR BEG. OCT.)								
IMPORTS	MIL. LBS.	157.4		13.3	8.8	6.6	7.7	4.5
STOCKS, END OF MONTH	MIL. LBS.	46.1		43.5	31.1	25.3	19.5	21.4
FACTORY CONSUMPTION	MIL. LBS.	111.3		11.1	7.7	7.5	5.7	---
PEANUTS (YEAR BEG. AUG.)								
CRUSHINGS, SHELLED	MIL. LBS.	833.2		16.3	27.2	11.4	24.3	23.5
STOCKS, END OF MONTH, UNSHELLED	MIL. LBS.	607.6		2,930.3	2,940.5	2,682.1	---	---
TOTAL EDIBLE USES, SHELLED	MIL. LBS.	1,148.8		107.9	88.2	88.8	---	---

CONTINUED

TABLE 23.--CURRENT U.S. FATS AND OILS STATISTICS (--CONTINUED)

ITEM	UNIT	CROP YEAR		1977			1978	
		1976/77	1977/78	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY
PEANUT MEAL (YEAR BEG. AUG.)								
PRODUCTION	1000 TONS	237.4		4.7	8.1	3.2	7.0	7.0
STOCKS, END OF MONTH	1000 TONS	5.9		1.9	1.9	2.9	2.0	2.2
DOMESTIC DISAPPEARANCE	1000 TONS	23[illegible].4		[illegible]	[illegible]	4.2	5.9	6.[illegible]
PEANUT OIL (YEAR BEG. AUG.)								
PRODUCTION	MIL. LBS.	362.6		6.1	10.5	4.4	9.7	9.2
STOCKS, END OF MONTH	MIL. LBS.	221.5		1[illegible].3	116.[illegible]	[illegible]9.1	95.6	87.4
EXPORTS AND SHIPMENTS	MIL. LBS.	45.9		11.[illegible]	11.7	9.9	9.5	3.4
DOMESTIC DISAPPEARANCE	MIL. LBS.	232.1		33.7	1[illegible]	14.1	3.6	13.9
SAFFLOWERSEED (YEAR BEG. OCT.)								
EXPORTS AND SHIPMENTS	MIL. LBS.	61.4		[illegible]	1.1	3.1	0.2	6.6
SAFFLOWERSEED OIL (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	---		---	---	---	---	---
STOCKS, END OF MONTH	MIL. LBS.	24.[illegible]		[illegible]	25.[illegible]	29.7	27.0	25.1
FACTORY CONSUMPTION	MIL. LBS.	35.8		4.4	3.3	4.1	1.9	3.0
SALAD AND COOKING OIL (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	4,[illegible]		[illegible]	386.2	436.9	391.1	383.7
IMPORTS	MIL. LBS.	[illegible].3		[illegible]	2.2	7.3	---	---
STOCKS, END OF MONTH	MIL. LBS.	[illegible].7		109.3	101.5	105.8	127.7	119.5
EXPORTS AND SHIPMENTS	MIL. LBS.	161.4		7.3	27.[illegible]	34.4	---	---
DOMESTIC DISAPPEARANCE	MIL. LBS.	4,1[illegible].9		353.7	369.6	401.1	---	---
SHORTENING (YEAR BEG. OCT.)								
PRODUCTION, TOTAL	MIL. LBS.	3,77[illegible].5		343.6	347.9	344.6	312.4	305.5
100% VEGETABLE OIL	MIL. LBS.	[illegible]24.4		255.3	263.1	253.0	229.1	222.4
100% ANIMAL FATS	MIL. LBS.	[illegible]4[illegible].1		88.2	84.[illegible]	89.1	83.4	83.1
STOCKS, TOTAL, END OF MONTH	MIL. LBS.	117.9		112.1	109.6	113.0	138.8	125.8
100% VEGETABLE OIL	MIL. LBS.	97.1		92.6	88.7	90.6	115.9	103.3
100% ANIMAL FATS OR BLEND	MIL. LBS.	20.8		19.5	20.9	23.2	22.9	22.4
EXPORTS AND SHIPMENTS	MIL. LBS.	60.[illegible]		5.1	4.9	4.3	2.7	1.8
DOMESTIC DISAPPEARANCE	MIL. LBS.	3,716.6		344.[illegible]	345.[illegible]	336.1	283.9	316.8
SOAP (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	953.7		78.2	78.7	71.9	78.6	77.5
IMPORTS	MIL. LBS.	4.7		0.6	0.3	---	---	---
EXPORTS AND SHIPMENTS	MIL. LBS.	31.2		1.3	1.1	3.7	2.2	1.5
DOMESTIC DISAPPEARANCE	MIL. LBS.	927.3		77.5	77.9	67.6	---	---
SOYBEAN (YEAR BEG. SEPT.)								
CRUSHINGS	MIL. BU.	790.[illegible]		75.8	85.3	86.5	85.3	75.4
STOCKS, AT MILLS, END OF MONTH	MIL. BU.	23.4		1[illegible]1.[illegible]	123.9	113.0	94.4	87.3
EXPORTS AND SHIPMENTS	MIL. BU.	564.1		77.6	190.3	182.4	114.9	147.9
OIL YIELD PER BUSHEL CRUSHED	LBS.	11.1		10.[illegible]	10.8	10.8	10.7	10.7
MEAL YIELD PER BUSHEL CRUSHED	LBS.	47.6		47.[illegible]	47.3	47.2	47.1	47.2
SOYBEAN LECITHIN (YEAR BEG. OCT.)								
PRODUCTION	1000 TONS	---		---	---	---	---	---
STOCKS, AT MILLS, END OF MONTH	1000 TONS	---		---	---	---	---	---
SOYBEAN MEAL (YEAR BEG. OCT.)								
PRODUCTION, TOTAL	1000 TONS	18,[illegible]		1,[illegible]1.4	2,017.3	2,044.1	[illegible]06.7	1,778.3
ANIMAL FEEDS	1000 TONS	8[illegible]00.7		1,744.4	1,983.6	2,013.3	1,908.3	1,689.2
EDIBLE PROTEIN PRODUCTS	1000 TONS	397.7		77.[illegible]	33.7	30.8	31.1	29.0
STOCKS, END OF MONTH	1000 TONS	228.3		27[illegible]	238.8	245.1	251.7	239.6
EXPORTS AND SHIPMENTS	1000 TONS	4,613.9		278.9	541.1	520.7	309.3	227.3
DOMESTIC DISAPPEARANCE	1000 TONS	14,[illegible]		1,[illegible]0.8	1,506.4	1,519.1	1,69[illegible]	1,563.1
SOYBEAN OIL (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	[illegible],577.9		921.9	92[illegible].3	931.5	911.9	[illegible]03.4
STOCKS, END OF MONTH	MIL. LBS.	766.6		752.1	766.5	859.2	913.[illegible]	859.6
EXPORTS AND SHIPMENTS	MIL. LBS.	1,607.7		119.[illegible]	190.4	152.6	114.9	147.9
DOMESTIC DISAPPEARANCE	MIL. LBS.	7,454.4		718.5	717.5	656.2	742.3	715.9
SUNFLOWERSEED (YEAR BEG. OCT.)								
CRUSHINGS	1000 TONS	---		---	22.7	12.3	19.1	---
STOCKS, AT MILLS, END OF MONTH	1000 TONS	---		38.9	---	---	14.5	---
EXPORTS AND SHIPMENTS	MIL. LBS.	869.1		395.7	403.7	261.0	74.9	50.2
SUNFLOWERSEED MEAL (YEAR BEG. OCT.)								
PRODUCTION	1000 TONS	9.1		---	13.0	7.2	10.8	---
STOCKS, AT MILLS, END OF MONTH	1000 TONS	2.4		1.[illegible]	5.8	1.0	1.3	---
SUNFLOWERSEED OIL (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	13.1		---	16.5	10.2	15.5	---
STOCKS, AT MILLS, END OF MONTH	MIL. LBS.	---		---	---	---	14.5	---
TALL OIL (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	1,161.1		94.4	92.4	14.1	12.9	17.6
STOCKS, END OF MONTH	MIL. LBS.	147.7		141.8	144.4	130.5	139.8	148.2
EXPORTS AND SHIPMENTS	MIL. LBS.	176.2		11.4	5.4	8.7	16.0	12.3
DOMESTIC DISAPPEARANCE	MIL. LBS.	1,014.7		89.0	84.4	83.8	---	---
TALLOW EDIBLE (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	331.6		63.9	65.2	67.4	64.1	61.1
STOCKS, END OF MONTH	MIL. LBS.	33.5		32.0	33.7	43.8	48.7	49.3
EXPORTS AND SHIPMENTS	MIL. LBS.	22.9		2.1	0.4	2.9	---	0.6
DOMESTIC DISAPPEARANCE	MIL. LBS.	534.1		63.3	63.0	54.5	57.7	59.6
TALLOW INEDIBLE AND GREASES (YEAR BEG. OCT.)								
PRODUCTION CENSUS REPORTED	MIL. LBS.	5,443.4		427.4	435.2	423.5	---	---
INEDIBLE TALLOW	MIL. LBS.	2,759.4		245.6	251.7	243.2	---	---
GREASES	MIL. LBS.	759.5		75.7	75.8	72.3	---	---
INEDIBLE AND GREASES, N.S.K.	MIL. LBS.	1,924.5		10[illegible]	107.6	107.9	---	---
IMPORTS	MIL. LBS.	6.1		0.4	0.1	0.2	---	---
STOCKS TOTAL, END OF MONTH	MIL. LBS.	359.3		350.8	321.0	333.2	344.0	343.0
INEDIBLE TALLOW	MIL. LBS.	193.6		189.6	321.0	333.2	---	---
GREASES	MIL. LBS.	41.3		36.[illegible]	37.4	34.0	---	---
INEDIBLE AND GREASES, N.S.K.	MIL. LBS.	193.6		1[illegible]6.[illegible]	99.6	114.0	---	---
EXPORTS AND SHIPMENTS	MIL. LBS.	2,849.4		273.8	202.8	241.4	207.0	---
DOMESTIC DISAPPEARANCE	MIL. LBS.	3,179.7		262.1	248.6	243.1	---	---
TUNG OIL (YEAR BEG. OCT.)								
IMPORTS	MIL. LBS.	22.1		0.[illegible]	1.1	0.9	1.3	1.0
STOCKS, END OF MONTH	MIL. LBS.	2.3		1.8	3.1	3.4	2.9	3.0
FACTORY CONSUMPTION	MIL. LBS.	20.1		1.7	1.8	1.2	1.3	1.4
VEGETABLE FOOTS (YEAR BEG. OCT.)								
PRODUCTION	MIL. LBS.	---		---	---	---	---	---
STOCKS, END OF MONTH	MIL. LBS.	35.8		35.9	35.6	35.7	42.3	35.3
EXPORTS AND SHIPMENTS	MIL. LBS.	---		---	---	---	--	---
FACTORY CONSUMPTION	MIL. LBS.	75.5		6.7	6.[illegible]	8.9	7.2	9.4

1/ PRELIMINARY. N.A. = NOT AVAILABLE.

TABLE 24.---INDEX NUMBERS OF WHOLESALE PRICES OF FATS AND OILS, BY MONTHS, 1967 = 100

ITEM	1977						1978		
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
WHOLESALE									
ALL FATS AND OILS	256	244	227	256	242	248	246	257	285
ALL FATS AND OILS, EXCEPT BUTTER	297	281	259	296	273	286	283	298	338
GROUP BY ORIGIN:									
ANIMAL FATS	218	205	194	223	206	173	207	220	244
VEGETABLE OILS, DOMESTIC	179	179	155	159	167	186	176	175	209
VEGETABLE OILS, FOREIGN	206	200	187	204	206	227	222	216	262
GROUP BY USE:									
BUTTER	151	151	151	152	151	154	151	151	155
LARD	263	243	229	275	243	247	249	266	304
LARD, REFINED	245	247	238	249	257	260	208	223	237
FOOD FATS OTHER THAN BUTTER	199	188	174	203	187	194	193	202	234
FOOD FATS OTHER THAN BUTTER AND LARD	186	185	161	173	181	201	191	189	227
ALL EDIBLE FATS AND OILS	184	175	163	187	174	180	178	166	213
SOAP FATS	287	273	250	278	270	269	267	287	299
DRYING OILS	204	199	192	177	162	169	163	161	170
OTHER INDUSTRIAL	243	232	221	239	244	237	237	246	256
ALL INDUSTRIAL	274	261	242	251	252	253	250	266	277
EDIBLE VEGETABLE OILS, GROUPED BY DEGREE OF PROCESSING:									
CRUDE	181	181	155	164	175	197	186	185	224
REFINED	182	173	163	180	190	212	222	225	230
END PRODUCTS	210	200	202	197	192	197	195	194	207
MARGARINE	213	202	209	203	200	195	195	195	201
SHORTENING, 3-POUND TIN	234	221	208	204	204	204	205	204	209
SHORTENING, 440-POUND DRUM	179	175	187	182	169	192	175	172	200
RETAIL 1/									
EDIBLE FATS AND OILS	205	206	202	196	197	196	---	198	---
MARGARINE	224	228	219	213	214	212	---	213	---
SALAD DRESSING, ITALIAN STYLE	169	170	168	170	168	168	---	171	---
SALAD AND COOKING OIL	221	222	215	207	209	208	---	210	---

1/ CPI SEASONALLY ADJUSTED SERIES.

SOURCE: ALL INDEXES EXCEPT "OTHER INDUSTRIAL" FROM BUREAU OF LABOR STATISTICS.

TABLE 25.--PRICES RECEIVED BY FARMERS AND PRICES AT TERMINAL MARKETS FOR SPECIFIED OIL-BEARING MATERIALS AND OILMEALS, BY MONTHS

ITEM	UNIT	1977			1978		
		OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
OILSEEDS							
COTTONSEED, UNITED STATES AVERAGE	SHORT TON	74.00	71.00	67.00	67.00	68.00	---
FLAXSEED, NO. 1, MINNEAPOLIS	BUSHEL	4.79	---	4.80	4.61	4.51	4.82
FLAXSEED, UNITED STATES AVERAGE	BUSHEL	4.28	3.91	4.32	4.12	4.07	4.26
PEANUTS, UNITED STATES AVERAGE (FARMERS' STOCK)	100 LB.	20.90	20.40	20.40	21.50	---	---
PEANUTS, VIRGINIA NO. 1, SHELLED, VIRGINIA-NORTH CAROLINA 1/	100 LB.	32.00	31.88	33.53	34.25	33.93	33.92
PEANUTS, RUNNERS NO. 1, SHELLED, SOUTHEAST 1/	100 LB.	32.12	---	33.96	33.60	---	---
PEANUTS, SPANISH NO. 1, SHELLED, SOUTHEAST 1/	100 LB.	---	---	---	---	---	---
PEANUTS, SPANISH NO. 1, SHELLED, SOUTHWEST 1/	100 LB.	37.25	39.12	39.64	40.71	40.92	40.93
SOYBEANS, NO. 1, YELLOW, CHICAGO	BUSHEL	5.05	5.77	5.87	5.65	5.57	6.47
SOYBEANS, NO. 1, YELLOW, ILLINOIS COUNTRY SHIPPING POINTS	BUSHEL	5.07	5.84	5.94	5.73	5.65	6.53
SOYBEANS, UNITED STATES AVERAGE	BUSHEL	5.28	5.61	5.69	5.75	5.53	6.28
OILMEALS (BULK)							
COTTONSEED MEAL, 41 PERCENT PROTEIN, MEMPHIS	SHORT TON	121.25	152.60	141.25	148.00	148.60	150.00
COTTONSEED MEAL, 41 PERCENT PROTEIN, ATLANTA	SHORT TON	135.50	177.40	154.60	159.30	162.30	164.75
COTTONSEED MEAL, 41 PERCENT PROTEIN, FORT WORTH	SHORT TON	129.40	162.00	150.60	153.50	159.40	150.00
FISH MEAL, 65 PERCENT PROTEIN, BAGGED, EAST COAST	SHORT TON	---	353.00	363.75	365.00	362.50	400.00
FISH MEAL, 65 PERCENT PROTEIN, BULK, LOS ANGELES	SHORT TON	330.40	327.70	---	---	---	390.00
LINSEED MEAL, 34 PERCENT PROTEIN, MINNEAPOLIS	SHORT TON	141.75	150.20	156.25	133.00	116.25	136.25
PEANUT MEAL, 50 PERCENT PROTEIN, F.O.B. SOUTHEASTERN MILLS	SHORT TON	---	---	---	---	---	---
SAFFLOWER MEAL, 20 PERCENT SOLVENT, SAN FRANCISCO	SHORT TON	45.00	55.00	62.00	59.20	60.00	60.00
SOYBEAN MEAL, 44 PERCENT PROTEIN, CHICAGO	SHORT TON	145.40	172.30	170.70	173.10	164.00	190.50
SOYBEAN MEAL, 44 PERCENT PROTEIN, DECATUR	SHORT TON	135.00	161.70	160.10	162.20	152.90	179.40
SOYBEAN MEAL, 44 PERCENT PROTEIN, ATLANTA	SHORT TON	156.20	175.80	174.75	178.20	169.60	199.20
SOYBEAN MEAL, 44 PERCENT PROTEIN, MEMPHIS	SHORT TON	144.10	163.90	164.30	170.25	158.70	188.20
SOYBEAN MEAL, 49-50 PERCENT PROTEIN, DECATUR	SHORT TON	150.75	177.90	175.10	175.40	166.40	193.40
SOYBEAN MEAL, 49-50 PERCENT PROTEIN, MEMPHIS	SHORT TON	162.00	182.60	182.70	188.50	174.50	202.40
SOYBEAN MEAL, 49-50 PERCENT PROTEIN, ATLANTA	SHORT TON	168.60	189.40	188.30	190.60	181.60	210.40
OTHER FEEDS							
CORN GLUTEN MEAL, 60 PERCENT PROTEIN, CHICAGO	SHORT TON	183.33	212.00	244.20	250.00	250.00	248.50
MEAT AND BONE MEAL, 50 PERCENT PROTEIN, CHICAGO	SHORT TON	180.00	215.00	187.00	185.00	183.12	234.37
UREA, 45 PERCENT N., FEED GRADE, BULK, OLVO EAST	SHORT TON	167.50	167.50	167.50	167.50	167.50	167.50

1/ THIS PRICE APPLIES TO PEANUTS FOR EDIBLE USES.

SOURCES: COMPILED FROM CHEMICAL MARKET REPORTER, WALL STREET JOURNAL, FEEDSTUFFS, REPORTS OF THE STATISTICAL REPORTING SERVICE, AND AGRICULTURAL MARKETING SERVICE.

TABLE 26.--WHOLESALE AND RETAIL PRICES PER POUND FOR FATS AND OILS, BY MONTHS

ITEM	1977			1978		
	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH
	CENTS					
WHOLESALE						
BUTTER, CREAMERY, GRADE A, (92- AND 93-SCORE) BULK, NEW YORK	108.3	105.4	107.4	104.9	103.8	---
BUTTER, CREAMERY, GRADE A, (92-SCORE) BULK, CHICAGO	100.7	100.9	101.6	100.7	100.7	101.3
CASTOR OIL, NO.1, BRAZILIAN, TANKS, IMPORTED, NEW YORK	46.0	46.0	46.0	46.1	46.5	46.5
COCONUT OIL, CRUDE, TANK CARS, PACIFIC COAST 1/	23.9	24.9	26.4	26.4	27.1	31.9
COCONUT OIL, CRUDE, TANKS, F.O.B., NEW YORK	24.2	25.4	27.1	27.1	27.7	32.9
COD OIL, BULK, F.O.B., GLOUCESTER, MASSACHUSETTS	19.0	19.0	19.0	19.0	19.0	19.0
CODLIVER OIL, NF, DRUMS, NEW YORK	70.0	70.0	70.0	70.0	70.0	70.0
CORN OIL, CRUDE, TANK CARS, F.O.B., DECATUR	26.5	31.5	35.0	40.0	44.0	43.0
CORN OIL, REFINED, TANKS, NEW YORK	33.9	37.9	42.0	45.3	49.3	49.5
COTTONSEED OIL, CRUDE, TANK CARS, F.O.B., SOUTHEAST MILLS	20.0	20.5	23.5	23.0	22.3	25.0
COTTONSEED OIL, CRUDE, TANK CARS, F.O.B., VALLEY	19.3	21.4	23.9	22.7	22.7	25.2
COTTONSEED OIL, REFINED, TANKS, NEW YORK	26.3	28.3	31.0	29.9	29.5	32.0
DEGRAS, LINOLIN TECHNICAL, DRUMS, NEW YORK	64.0	64.0	64.0	64.0	64.0	64.0
FISH OIL, REFINED, ALKALI, TANKS, NEW YORK	23.0	23.0	23.0	23.0	23.0	23.0
GLYCERINE, SYNTHETIC, REFINED, 99.5 PERCENT, TANKS, DELIVERED, NEW YORK	52.5	52.5	52.5	52.3	52.3	52.3
GLYCERINE, NATURAL, REFINED, U.S.P., 99 PERCENT, TANKS, DELIVERED, NEW YORK	52.3	52.3	52.3	52.3	52.3	52.3
GREASE, A WHITE, TANK CARS, DELIVERED, CHICAGO	16.5	16.4	16.0	15.0	17.3	17.5
GREASE, B WHITE, DELIVERED, CHICAGO	14.6	14.7	14.1	14.4	15.2	16.6
GREASE, YELLOW, DELIVERED, CHICAGO	11.8	12.6	13.3	13.3	14.1	14.8
GREASE, WHITE, CHOICE, TANKS, NEW YORK	15.4	16.5	16.1	16.2	17.3	18.4
LARD OIL, EXTRA NO. 1, DRUMS, CHICAGO	27.0	27.0	27.0	27.0	27.0	27.0
LARD, LOOSE, TANK CARS, CHICAGO	21.5	19.0	19.3	19.4	20.8	23.8
LARD, PRIME STEAM, TIERCES, CHICAGO	19.1	19.3	18.9	20.2	21.0	25.9
LARD, REFINED, 1 AND 2-POUND PRINTS, CHICAGO	33.8	36.3	35.3	28.3	30.3	32.3
LECITHIN, EDIBLE, TECHNICAL, BLEACHED, DRUMS, WORKS	38.0	38.0	38.0	38.0	38.0	38.0
LINSEED OIL, RAW, TANK CARS, MINNEAPOLIS	22.8	20.0	20.0	26.6	26.6	26.6
LINSEED OIL, RAW, TANKS, NEW YORK	29.8	30.3	28.1	26.6	22.9	---
MARGARINE, COLORED, DELIVERED, EASTERN UNITED STATES	51.3	51.3	50.0	50.0	50.0	51.4
MARGARINE, YELLOW, QUARTERS, F.O.B., CHICAGO	37.4	36.9	36.1	36.6	36.7	41.0
MARGARINE, WHITE, DOMESTIC VEGETABLE, CHICAGO	37.4	36.9	36.1	34.5	34.6	38.9
MENHADEN OIL, CRUDE, TANKS, F.O.B., BALTIMORE	15.0	15.0	15.0	15.0	15.0	15.0
MENHADEN OIL, LIGHT PRESSED, TANKS, NEW YORK	24.5	24.5	24.5	24.5	24.5	24.5
OITICICA OIL, DRUMS, F.O.B., NEW YORK	72.0	72.0	72.0	72.0	72.0	72.0
OITICICA OIL, TANKS, NEW YORK	75.5	75.5	75.5	75.5	75.5	75.5
OLIVE OIL, IMPORTED, EDIBLE, DRUMS, NEW YORK	86.7	86.7	86.7	86.7	86.7	86.7
PALM KERNEL OIL, CIF, BULK, U.S. PORTS	36.9	36.9	36.9	36.9	36.9	36.9
PALM OIL, CIF, BULK, U.S. PORTS	20.2	20.4	23.9	23.1	25.2	27.4
PEANUT OIL, CRUDE, TANK CARS, F.O.B., SOUTHEAST MILLS	26.4	23.5	37.4	42.2	39.4	36.1
PEANUT OIL, REFINED, TANKS, NEW YORK	34.1	33.4	42.8	47.3	44.9	41.2
RAPESEED OIL, REFINED, DENATURED, TANKS, NEW YORK	39.0	39.0	39.0	39.0	39.0	39.0
SAFFLOWER OIL, TANKS, NEW YORK	41.5	41.5	41.5	41.0	41.0	41.0
SAFFLOWER OIL, EDIBLE, DRUMS, NEW YORK	52.0	52.0	52.0	52.0	52.0	52.0
SESAME OIL, REFINED, DRUMS, NEW YORK	87.5	87.5	87.5	87.5	87.5	87.5
SHORTENING, ALL VEGETABLE, HYDROGENATED, 440-POUND DRUMS, NEW YORK	37.8	35.0	39.8	36.3	35.8	41.5
SOYBEAN OIL, CRUDE, TANK CARS, F.O.B., DECATUR	18.8	21.0	22.6	20.9	21.6	26.6
SOYBEAN OIL, REFINED, TANKS, NEW YORK	24.2	25.9	27.8	26.1	26.8	31.7
TALL OIL, CRUDE, TANKS, WORKS	7.1	7.1	7.2	7.4	7.5	7.5
TALLOW, EDIBLE, LOOSE, CHICAGO	23.0	21.0	19.8	19.5	19.5	20.5
TALLOW, INEDIBLE, PACKERS' PRIME, C.A.F., DELIVERED, CHICAGO	15.5	15.3	15.0	15.4	16.0	17.3
TALLOW, INEDIBLE, BLEACHABLE FANCY, DELIVERED, CHICAGO	16.4	16.4	15.9	16.6	17.1	18.7
TALLOW, INEDIBLE, NO. 1, DELIVERED, CHICAGO	12.4	13.0	13.1	13.6	14.1	15.4
TUNG OIL, IMPORTED, DRUMS, F.O.B., NEW YORK	100.0	100.0	100.0	100.0	100.0	100.0
TUNG OIL, IMPORTED, TANKS, NEW YORK	110.0	110.0	110.0	110.0	110.0	110.0
RETAIL 2/						
BUTTER	136.5	137.4	138.1	138.9	139.1	139.4
COOKING AND SALAD OILS	73.9	73.3	109.8	73.3	73.5	73.4
MARGARINE	59.6	59.6	58.8	58.6	59.4	60.8
PEANUT BUTTER	100.8	98.6	99.4	99.4	99.5	100.0
SALAD DRESSING (ITALIAN)	126.2	126.2	126.2	127.4	128.2	129.2
SHORTENING	54.7	54.1	53.6	53.8	52.5	52.9

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"A Simple Model for Predicting Quarterly Prices for Soybeans, Soybean Oil, and Soybean Meal," by R. McFall Lamm, Jr. (202-447-8776). *Fats and Oils Situation*, FOS-290, February 1978.

"Effects of the Price Support System for Soybeans: A Retrospective Analysis Using a Monthly Econometric Model," by R. McFall Lamm Jr. (202-447-8776). Paper presented at the annual meeting of the Southern Agricultural Economics Association, Houston, Texas. February 6, 1978.

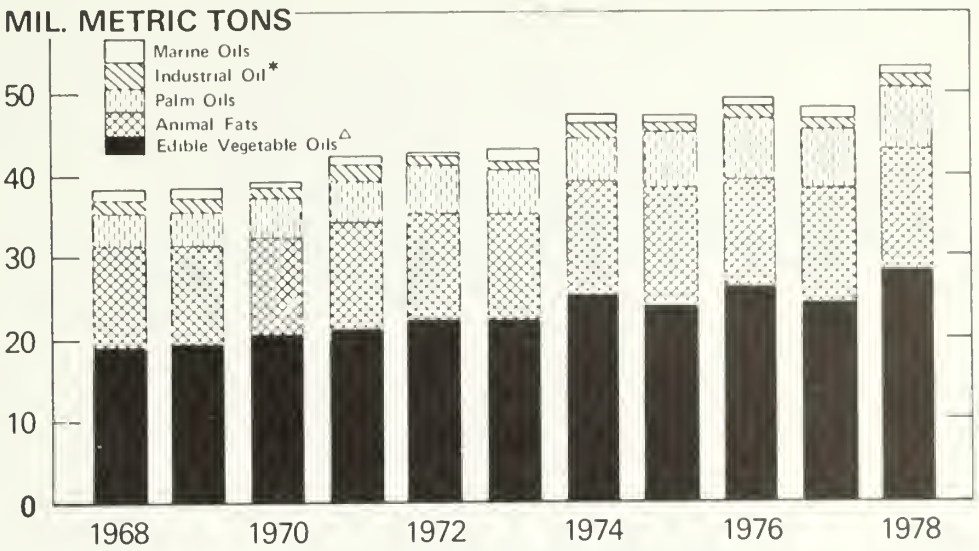
"Current Status and Future Market Potential for Cottonseed," by George W. Kromer (202-447-8444). Speech before the Glandless Cottonseed Conference, Sheraton-Dallas Hotel, Dallas, Texas, December 13, 1977.

"U.S. Oilseeds and Products Outlook," by George W. Kromer (202-447-8444). Talk at the 1978 Food and Agricultural Conference, Washington, D.C., November 15, 1977. For a copy of all the papers presented, ask for Committee Print, Committee on Agriculture, Nutrition, and Forestry, U.S. Senate, 95th Congress, 1st Session, December 19, 1977.

"World Oil Sources and Trends in Consumption." by George W. Kromer (202-447-8444). Speech before the Fifth Western Hemisphere Nutrition Congress, Quebec, P.Q., Canada, August 15, 1977.

"The World Peanut Situation and Prospects," by George W. Kromer (202-447-8444). Speech at the 59th Annual Convention of the Southeastern Peanut Association, held at the Hyatt House, Birmingham, Alabama, June 20, 1977.

WORLD PRODUCTION OF OILS AND FATS (OIL BASIS)



*INCLUDES LINSEED, CASTOR, OITICIA AND TUNG △INCLUDES COTTONSEED, PEANUT, SOYBEAN SUNFLOWER SEED, RAPE SEED, SESAME SEED, SAFFLOWER SEED, OLIVE OIL AND CORN OIL

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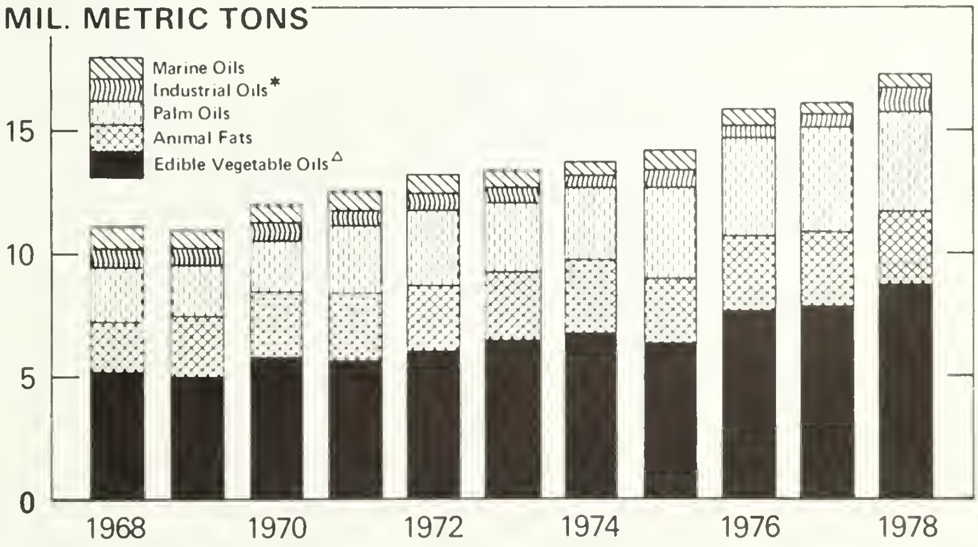
WORLD EXPORTS OF OILS AND FATS (OIL BASIS)



*INCLUDES LINSEED, CASTOR, OITICIA AND TUNG. △INCLUDES COTTONSEED, PEANUT, SOYBEAN SUNFLOWER SEED, RAPE SEED, SAFFLOWER SEED, OLIVE OIL AND CORN OIL

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